

INTERLEUKIN-2 MUTEINS FOR THE TREATMENT OF AUTOIMMUNE DISEASES

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims the benefit of U.S. Provisional Application No. 63/309,293, filed
5 February 11, 2022. The contents of the aforementioned application are hereby incorporated by
reference in their entirety.

SEQUENCE LISTING

The instant application contains a Sequence Listing which has been submitted electronically
10 in ASCII format and is hereby incorporated by reference in its entirety. Said ASCII copy, created on
February 9, 2023, is named P2029-7048WO_SL.txt and is 1,534,285 bytes in size.

BACKGROUND

Interleukin-2 (IL-2) is a cytokine that regulates the activities of the immune system. It is
15 produced by leukocytes, such as T cells, natural killer (NK) cells, dendritic cells, and macrophages, in
response to antigenic or mitogenic stimulation. IL-2 is important for T cell proliferation, B cell
stimulation, and other activities associated with immunity and tolerance. It is part of the body's
adaptive immune response and discriminates between foreign and host antigens. IL-2 mediates its
effects by binding to IL-2 receptors, which in turn activate downstream signaling events.

20 Human IL-2 is an-FDA approved drug for the treatment of diseases such as metastatic renal
carcinoma and melanoma. The use of IL-2 in eligible patients is sometimes restricted due to the
severe toxicity associated with IL-2 therapy, and only a small subset of eligible patients will actually
receive therapy. The toxicities associated with IL-2 therapy can include severe fever, nausea,
vomiting, vascular leak and serious hypotension. Despite these toxicities, however, IL-2 is typically
25 effective for its approved indications.

For patients with various diseases and conditions that are amenable to treatment with IL-2,
there continues to be an unmet need for novel IL-2-based agents that exhibit characteristics sufficient
for the development of a safe and efficacious therapeutic.

SUMMARY

30 This disclosure provides, at least in part, IL-2 agents (*e.g.*, IL-2 variants, IL-2 fusion proteins,
IL-2 complexes, and IL-2 conjugates) that comprise one or more amino acid alterations (*e.g.*,
substitutions) in IL-2, and that comprise one or more of the structural or functional properties
disclosed herein. In an embodiment, nucleic acid molecules encoding the IL-2 agents, expression
35 vectors, host cells, compositions (*e.g.*, pharmaceutical compositions), kits, containers, and methods
for making the IL-2 agents, are also provided. The IL-2 agents disclosed herein can be used (alone or

in combination with other agents or therapeutic modalities) to treat, prevent, and/or diagnose disorders, such as disorders and conditions disclosed herein.

5 In an aspect, the disclosure features an IL-2 agent (e.g., an IL-2 agent described herein) for use a method of treating an autoimmune disease in a subject (e.g., human subject), wherein the IL-2 agent is administered at a dose of 0.5 $\mu\text{g/kg}$ to 300 $\mu\text{g/kg}$.

In an embodiment, the IL-2 agent is an IL-2 variant or an IL-2 fusion protein comprising the IL-2 variant. In an embodiment, wherein the IL-2 variant comprises: (i) the amino acid substitution H16L or H16N, and/or the amino acid substitution I92S; and (ii) the amino acid substitutions V69A,
10 Q74P, and C125S, corresponding to human IL-2 (SEQ ID NO: 1031).

In an embodiment, the IL-2 agent is administered at a dose of 0.5 $\mu\text{g/kg}$ to 100 $\mu\text{g/kg}$, 1 $\mu\text{g/kg}$ to 50 $\mu\text{g/kg}$, 2 $\mu\text{g/kg}$ to 40 $\mu\text{g/kg}$, 3 $\mu\text{g/kg}$ to 30 $\mu\text{g/kg}$, 4 $\mu\text{g/kg}$ to 25 $\mu\text{g/kg}$, 5 $\mu\text{g/kg}$ to 20 $\mu\text{g/kg}$, 10 $\mu\text{g/kg}$ to 15 $\mu\text{g/kg}$, 1 $\mu\text{g/kg}$ to 40 $\mu\text{g/kg}$, 1 $\mu\text{g/kg}$ to 30 $\mu\text{g/kg}$, 1 $\mu\text{g/kg}$ to 20 $\mu\text{g/kg}$, 1 $\mu\text{g/kg}$ to 10 $\mu\text{g/kg}$, 1 $\mu\text{g/kg}$ to 5 $\mu\text{g/kg}$, 5 $\mu\text{g/kg}$ to 50 $\mu\text{g/kg}$, 10 $\mu\text{g/kg}$ to 50 $\mu\text{g/kg}$, 20 $\mu\text{g/kg}$ to 50 $\mu\text{g/kg}$, 30 $\mu\text{g/kg}$ to 50 $\mu\text{g/kg}$, 40 $\mu\text{g/kg}$ to 50 $\mu\text{g/kg}$, 0.5 $\mu\text{g/kg}$ to 2 $\mu\text{g/kg}$, 3 $\mu\text{g/kg}$ to 5 $\mu\text{g/kg}$, 6 $\mu\text{g/kg}$ to 10 $\mu\text{g/kg}$, 12 $\mu\text{g/kg}$ to 20 $\mu\text{g/kg}$, or 25 $\mu\text{g/kg}$ to 40 $\mu\text{g/kg}$. In an embodiment, the IL-2 agent is administered at a dose of 1 $\mu\text{g/kg}$, 4 $\mu\text{g/kg}$, 8 $\mu\text{g/kg}$, 16 $\mu\text{g/kg}$, or 32 $\mu\text{g/kg}$. In an embodiment, the IL-2 agent is administered at a dose of 1 $\mu\text{g/kg}$. In an embodiment, the IL-2 agent is administered at a dose of 4 $\mu\text{g/kg}$. In an embodiment, the IL-2 agent is administered at a dose of 8 $\mu\text{g/kg}$. In an embodiment, the IL-2 agent is administered at a dose of 16 $\mu\text{g/kg}$. In an embodiment, the IL-2 agent is administered at a dose of 32 $\mu\text{g/kg}$. In an embodiment, the IL-2 agent is administered once a week, once every two weeks, or once every four weeks, e.g., for at least eight weeks. In an embodiment, the IL-2 agent is administered once every two weeks. In an embodiment, the IL-2 agent is administered subcutaneously.

25 In an embodiment, the autoimmune disorder is systemic lupus erythematosus (SLE), autoimmune hepatitis (AIH), focal segmental glomerulosclerosis (FSGS) (e.g., immune-mediated focal segmental glomerulosclerosis (IM-FSGS)), or alopecia areata (AA). In an embodiment, the autoimmune disorder is systemic lupus erythematosus (SLE). In an embodiment, the autoimmune disorder is autoimmune hepatitis (AIH). In an embodiment, the autoimmune disorder is focal
30 segmental glomerulosclerosis (FSGS) (e.g., immune-mediated focal segmental glomerulosclerosis (IM-FSGS)). In an embodiment, the autoimmune disorder is alopecia areata (AA).

In an embodiment, wherein the IL-2 variant comprises the amino acid substitution H16L V69A, Q74P, and C125S. In an embodiment, the IL-2 variant further comprises the amino acid substitution T3A. In an embodiment, the IL-2 variant comprises the amino acid sequence of any of
35 SEQ ID NOs: 4, 5, 11, 1000, 1001, or 1002, an amino acid sequence that is at least 95% identical thereto or differs by no more than 1, 2, 3, 4, or 5 amino acids therefrom, or a functional fragment

thereof. In an embodiment, the IL-2 variant comprises the amino acid sequence of any of SEQ ID NOs: 4, 5, 11, 1000, 1001, or 1002, or a functional fragment thereof.

In an embodiment, the IL-2 agent comprises an IL-2 fusion protein comprising the IL-2 variant. In an embodiment, the IL-2 fusion protein further comprises an Fc region. In an
5 embodiment, the Fc region comprises an Fc region of IgG1 allotype m3 comprising an N297G substitution according to EU numbering. In an embodiment, the Fc region comprises the amino acid sequence of SEQ ID NO: 1003, or an amino acid sequence that is at least 95% identical thereto or differs by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 amino acids therefrom, or a functional fragment thereof. In an embodiment, the Fc region is fused to the C-terminus of the IL-2 variant.

10 In an embodiment, the IL-2 fusion protein further comprises a linker. In an embodiment, the linker comprises (G₄S)₄ (SEQ ID NO: 48).

In an embodiment, the fusion protein comprises an amino acid sequence of any of SEQ ID NOs: 1004, 1005, 1006, 1007, 1008, or 1009, an amino acid sequence that is at least 95% identical thereto or differs by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 amino acids therefrom, or a functional
15 fragment thereof. In an embodiment, the fusion protein forms a dimer. In an embodiment, the fusion protein comprises an amino acid sequence of any of SEQ ID NOs: 1004, 1005, 1006, 1007, 1008, or 1009, or a functional fragment thereof.

In another aspect, the disclosure features a method of treating an autoimmune disease,
20 comprising administering to a subject (e.g., human subject) in need thereof an IL-2 agent (e.g., an IL-2 agent described herein) at a dose of 0.5 µg/kg to 300 µg/kg, thereby treating the autoimmune disease.

In an embodiment, the IL-2 agent is an IL-2 variant or an IL-2 fusion protein comprising the IL-2 variant. In an embodiment, wherein the IL-2 variant comprises: (i) the amino acid substitution
25 H16L or H16N, and/or the amino acid substitution I92S; and (ii) the amino acid substitutions V69A, Q74P, and C125S, corresponding to human IL-2 (SEQ ID NO: 1031).

In an embodiment, the IL-2 agent is administered at a dose of 0.5 µg/kg to 100 µg/kg, 1 µg/kg to 50 µg/kg, 2 µg/kg to 40 µg/kg, 3 µg/kg to 30 µg/kg, 4 µg/kg to 25 µg/kg, 5 µg/kg to 20 µg/kg, 10 µg/kg to 15 µg/kg, 1 µg/kg to 40 µg/kg, 1 µg/kg to 30 µg/kg, 1 µg/kg to 20 µg/kg, 1 µg/kg to 10 µg/kg, 1 µg/kg to 5 µg/kg, 5 µg/kg to 50 µg/kg, 10 µg/kg to 50 µg/kg, 20 µg/kg to 50 µg/kg, 30 µg/kg to 50 µg/kg, 40 µg/kg to 50 µg/kg, 0.5 µg/kg to 2 µg/kg, 3 µg/kg to 5 µg/kg, 6 µg/kg to 10 µg/kg, 12 µg/kg to 20 µg/kg, or 25 µg/kg to 40 µg/kg. In an embodiment, the IL-2 agent is administered at a dose of 1 µg/kg, 4 µg/kg, 8 µg/kg, 16 µg/kg, or 32 µg/kg. In an embodiment, the IL-2 agent is administered at a dose of 1 µg/kg. In an embodiment, the IL-2 agent is administered at a dose of 4
35 µg/kg. In an embodiment, the IL-2 agent is administered at a dose of 8 µg/kg. In an embodiment, the IL-2 agent is administered at a dose of 16 µg/kg. In an embodiment, the IL-2 agent is administered at a dose of 32 µg/kg. In an embodiment, the IL-2 agent is administered once a week, once every two

weeks, or once every four weeks, e.g., for at least eight weeks. In an embodiment, the IL-2 agent is administered once every two weeks. In an embodiment, the IL-2 agent is administered subcutaneously.

In an embodiment, the autoimmune disorder is systemic lupus erythematosus (SLE),
5 autoimmune hepatitis (AIH), focal segmental glomerulosclerosis (FSGS) (e.g., immune-mediated focal segmental glomerulosclerosis (IM-FSGS)), or alopecia areata (AA). In an embodiment, the autoimmune disorder is systemic lupus erythematosus (SLE). In an embodiment, the autoimmune disorder is autoimmune hepatitis (AIH). In an embodiment, the autoimmune disorder is focal
10 segmental glomerulosclerosis (FSGS) (e.g., immune-mediated focal segmental glomerulosclerosis (IM-FSGS)). In an embodiment, the autoimmune disorder is alopecia areata (AA).

In an embodiment, wherein the IL-2 variant comprises the amino acid substitution H16L V69A, Q74P, and C125S. In an embodiment, the IL-2 variant further comprises the amino acid substitution T3A. In an embodiment, the IL-2 variant comprises the amino acid sequence of any of
15 SEQ ID NOs: 4, 5, 11, 1000, 1001, or 1002, an amino acid sequence that is at least 95% identical thereto or differs by no more than 1, 2, 3, 4, or 5 amino acids therefrom, or a functional fragment thereof. In an embodiment, the IL-2 variant comprises the amino acid sequence of any of SEQ ID NOs: 4, 5, 11, 1000, 1001, or 1002, or a functional fragment thereof.

In an embodiment, the IL-2 agent comprises an IL-2 fusion protein comprising the IL-2 variant. In an embodiment, the IL-2 fusion protein further comprises an Fc region. In an
20 embodiment, the Fc region comprises an Fc region of IgG1 allotype m3 comprising an N297G substitution according to EU numbering. In an embodiment, the Fc region comprises the amino acid sequence of SEQ ID NO: 1003, or an amino acid sequence that is at least 95% identical thereto or differs by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 amino acids therefrom, or a functional fragment thereof. In an embodiment, the Fc region is fused to the C-terminus of the IL-2 variant.

25 In an embodiment, the IL-2 fusion protein further comprises a linker. In an embodiment, the linker comprises (G₄S)₄ (SEQ ID NO: 48).

In an embodiment, the fusion protein comprises an amino acid sequence of any of SEQ ID NOs: 1004, 1005, 1006, 1007, 1008, or 1009, an amino acid sequence that is at least 95% identical thereto or differs by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 amino acids therefrom, or a functional
30 fragment thereof. In an embodiment, the fusion protein comprises an amino acid sequence of any of SEQ ID NOs: 1004, 1005, 1006, 1007, 1008, or 1009, or a functional fragment thereof. In an embodiment, the fusion protein forms a dimer.

In an aspect, the disclosure features use of an IL-2 agent (e.g., an IL-2 agent described herein)
35 in the manufacture of a medicament for treating an autoimmune disease in a subject (e.g., human subject), wherein the IL-2 agent is administered at a dose of 0.5 µg/kg to 300 µg/kg.

In an embodiment, the IL-2 agent is an IL-2 variant or an IL-2 fusion protein comprising the IL-2 variant. In an embodiment, wherein the IL-2 variant comprises: (i) the amino acid substitution H16L or H16N, and/or the amino acid substitution I92S; and (ii) the amino acid substitutions V69A, Q74P, and C125S, corresponding to human IL-2 (SEQ ID NO: 1031).

5 In an embodiment, the IL-2 agent is administered at a dose of 0.5 µg/kg to 100 µg/kg, 1 µg/kg to 50 µg/kg, 2 µg/kg to 40 µg/kg, 3 µg/kg to 30 µg/kg, 4 µg/kg to 25 µg/kg, 5 µg/kg to 20 µg/kg, 10 µg/kg to 15 µg/kg, 1 µg/kg to 40 µg/kg, 1 µg/kg to 30 µg/kg, 1 µg/kg to 20 µg/kg, 1 µg/kg to 10 µg/kg, 1 µg/kg to 5 µg/kg, 5 µg/kg to 50 µg/kg, 10 µg/kg to 50 µg/kg, 20 µg/kg to 50 µg/kg, 30 µg/kg to 50 µg/kg, 40 µg/kg to 50 µg/kg, 0.5 µg/kg to 2 µg/kg, 3 µg/kg to 5 µg/kg, 6 µg/kg to 10 µg/kg, 12 µg/kg to 20 µg/kg, or 25 µg/kg to 40 µg/kg. In an embodiment, the IL-2 agent is administered at a dose of 1 µg/kg, 4 µg/kg, 8 µg/kg, 16 µg/kg, or 32 µg/kg. In an embodiment, the IL-2 agent is administered at a dose of 1 µg/kg. In an embodiment, the IL-2 agent is administered at a dose of 4 µg/kg. In an embodiment, the IL-2 agent is administered at a dose of 8 µg/kg. In an embodiment, the IL-2 agent is administered at a dose of 16 µg/kg. In an embodiment, the IL-2 agent is administered at a dose of 32 µg/kg. In an embodiment, the IL-2 agent is administered once a week, once every two weeks, or once every four weeks, e.g., for at least eight weeks. In an embodiment, the IL-2 agent is administered once every two weeks. In an embodiment, the IL-2 agent is administered subcutaneously.

20 In an embodiment, the autoimmune disorder is systemic lupus erythematosus (SLE), autoimmune hepatitis (AIH), focal segmental glomerulosclerosis (FSGS) (e.g., immune-mediated focal segmental glomerulosclerosis (IM-FSGS)), or alopecia areata (AA). In an embodiment, the autoimmune disorder is systemic lupus erythematosus (SLE). In an embodiment, the autoimmune disorder is autoimmune hepatitis (AIH). In an embodiment, the autoimmune disorder is focal segmental glomerulosclerosis (FSGS) (e.g., immune-mediated focal segmental glomerulosclerosis (IM-FSGS)). In an embodiment, the autoimmune disorder is alopecia areata (AA).

30 In an embodiment, wherein the IL-2 variant comprises the amino acid substitution H16L V69A, Q74P, and C125S. In an embodiment, the IL-2 variant further comprises the amino acid substitution T3A. In an embodiment, the IL-2 variant comprises the amino acid sequence of any of SEQ ID NOs: 4, 5, 11, 1000, 1001, or 1002, an amino acid sequence that is at least 95% identical thereto or differs by no more than 1, 2, 3, 4, or 5 amino acids therefrom, or a functional fragment thereof. In an embodiment, the IL-2 variant comprises the amino acid sequence of any of SEQ ID NOs: 4, 5, 11, 1000, 1001, or 1002, or a functional fragment thereof.

35 In an embodiment, the IL-2 agent comprises an IL-2 fusion protein comprising the IL-2 variant. In an embodiment, the IL-2 fusion protein further comprises an Fc region. In an embodiment, the Fc region comprises an Fc region of IgG1 allotype m3 comprising an N297G substitution according to EU numbering. In an embodiment, the Fc region comprises the amino acid sequence of SEQ ID NO: 1003, or an amino acid sequence that is at least 95% identical thereto or

differs by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 amino acids therefrom, or a functional fragment thereof. In an embodiment, the Fc region is fused to the C-terminus of the IL-2 variant.

In an embodiment, the IL-2 fusion protein further comprises a linker. In an embodiment, the linker comprises (G₄S)₄ (SEQ ID NO: 48).

- 5 In an embodiment, the fusion protein comprises an amino acid sequence of any of SEQ ID NOs: 1004, 1005, 1006, 1007, 1008, or 1009, an amino acid sequence that is at least 95% identical thereto or differs by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 amino acids therefrom, or a functional fragment thereof. In an embodiment, the fusion protein forms a dimer. In an embodiment, the fusion protein comprises an amino acid sequence of any of SEQ ID NOs: 1004, 1005, 1006, 1007, 1008, or
10 1009, or a functional fragment thereof.

Additional Embodiments

- The present disclosure is based, at least in part, on the discovery that a combination of mutations in IL-2 that stabilize the protein, reduce its affinity for CD122 (*e.g.*, CD122/CD132
15 heterodimer), and/or reduce or have no more than a minimal effect on its affinity for CD25, can be used to selectively enhance regulatory T cell (Treg) activity through the IL-2 pathway, and therefore achieve advantageous therapeutic effects for treating disorders and conditions such as autoimmune diseases. IL-2 agents comprising such mutations are suitable for treating conditions arising from abnormal immune responses, such as autoimmune diseases.

- 20 Accordingly, in an embodiment, the IL-2 agent has one or more (*e.g.*, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, or all) of the following properties a)-x):

- a) Expresses at a higher or increased level *in vitro* and/or *in vivo*, *e.g.*, increased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%,
25 about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100%, or more, or by increased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, or more, *e.g.*, relative to
30 an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant, *e.g.*, as by an assay of protein concentration;
- b) Aggregates at lower or decreased level *in vitro* and/or *in vivo*, *e.g.*, decreased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%,
35 about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100%, or more, or decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold,

- about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, or more *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant, *e.g.*, as determined by melting temperature analysis (*e.g.*, using fluorimetry), dynamic light scattering, and/or size-exclusion chromatography;
- 5 c) Has enhanced or increased stability *in vitro* and/or *in vivo*, *e.g.*, increased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100%, or more, or increased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, or more, *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant, *e.g.*, as determined by expression in yeast surface display, expression in mammalian cells, chromatography, circular dichroism or related spectroscopic technical, and/or melting temperature analysis (*e.g.*, using fluorimetry);
- 10 d) Has enhanced or increased half-life *in vitro* and/or *in vivo*, *e.g.*, increased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100%, or more, or greater than about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, or more, *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant, *e.g.*, as determined by ELISA, flow cytometry, and/or mass spectrometry;
- 15 e) Has a lower, reduced or decreased rate or level of turnover and/or clearance *in vivo*, *e.g.*, decreased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100%, or more, or decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, or more, *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent
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comprising a reference IL-2 variant, *e.g.*, as determined by ELISA, flow cytometry, and/or mass spectrometry;

- f) Has reduced or decreased or substantially unchanged binding affinity for CD25 (*e.g.*, human CD25), *e.g.*, decreased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100%, or more (*e.g.*, about 1% to about 20%, about 2% to about 15%, or about 5% to about 10%), or decreased or increased by no more than about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, or about 50%, or decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, or more, or decreased or increased by no more than about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, or about 5-fold, *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined by yeast surface display, bio-layer interferometry (*e.g.* Octet binding), and/or surface plasmon resonance (*e.g.* Biacore);
- g) Binds to CD25 (*e.g.*, human CD25) with low affinity, *e.g.*, with a dissociation constant (K_D) of about 5-500 pM, *e.g.*, about 5, about 10, about 15, about 20, about 25, about 30, about 35, about 40, about 45, about 50, about 55, about 60, about 65, about 70, about 75, about 80, about 85, about 90, about 95, about 100, about 105, about 110, about 115, about 120, about 125, about 130, about 135, about 140, about 145, about 150, about 200, about 250, about 300, about 350, about 400, about 450, or about 500 pM, or *e.g.*, about 10 pM to about 490 pM, about 20 pM to about 480 pM, about 30 pM to about 470 pM, about 40 pM to about 460 pM, about 50 pM to about 450 pM, about 60 pM to about 440 pM, about 70 pM to about 430 pM, about 80 pM to about 420 pM, about 90 pM to about 410 pM, about 100 pM to about 400 pM, about 110 pM to about 390 pM, about 120 pM to about 380 pM, about 130 pM to about 370 pM, about 140 pM to about 360 pM, about 150 pM to about 350 pM, about 160 pM to about 340 pM, about 170 pM to about 330 pM, about 180 pM to about 320 pM, about 190 pM to about 310 pM, about 200 pM to about 300 pM, about 210 pM to about 290 pM, about 220 pM to about 280 pM, about 230 pM to about 270 pM, about 240 pM to about 260 pM, or *e.g.*, about 5 pM to about 450 pM, about 5 pM to about 400 pM, about 5 pM to about 350 pM, about 5 pM to about 300 pM, about 5 pM to about 250 pM, about 5 pM to about 200 pM, about 5 pM to about 150 pM, about 5 pM to about 100 pM, about 5 pM to about 50 pM, or *e.g.*, about 10 pM to about

- 500 pM, about 20 pM to about 500 pM, about 50 pM to about 500 pM, about 100 pM to about 500 pM, about 150 pM to about 500 pM, about 200 pM to about 500 pM, about 250 pM to about 500 pM, about 300 pM to about 500 pM, about 350 pM to about 500 pM, about 400 pM to about 500 pM, about 450 pM to about 500 pM, or *e.g.*, greater than about 5, about 10, about 15, about 20, about 25, about 30, about 35, about 40, about 45, about 50, about 55, about 60, about 65, about 70, about 75, about 80, about 85, about 90, about 95, about 100, about 105, about 110, about 115, about 120, about 125, about 130, about 135, about 140, about 145, about 150, about 200, about 250, about 300, about 350, about 400, about 450, or about 500 pM, *e.g.* as determined yeast surface display;
- h) Binds to CD25 (*e.g.*, human CD25) with low affinity, *e.g.*, with a dissociation constant (K_D) of about 0.1-10 nM, *e.g.*, about 0.1, about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1, about 1.5, about 2, about 2.5, about 3, about 3.5, about 4, about 4.5, about 5, about 6, about 7, about 8, about 9, or about 10 nM, or *e.g.*, about 0.1 to about 9 nM, about 0.1 to about 8 nM, about 0.1 to about 7 nM, or about 0.1 to about 6 nM, *e.g.*, about 0.1 to about 5 nM, about 0.1 to about 4 nM, about 0.1 to about 3 nM, about 0.1 to about 2 nM, about 0.1 to about 1 nM, or about 0.1 to about 0.5 nM, or *e.g.*, about 0.1 to about 10 nM, about 0.5 to about 10 nM, about 1 to about 10 nM, about 1.5 to about 10 nM, about 2 to about 10 nM, about 2.5 to about 10 nM, about 3 to about 10 nM, about 3.5 to about 10 nM, about 4 to about 10 nM, about 4.5 to about 10 nM, about 5 to about 10 nM, about 5.5 to about 10 nM, about 6 to about 10 nM, about 6.5 to about 10 nM, about 7 to about 10 nM, about 7.5 to about 10 nM, about 8 to about 10 nM, about 8.5 to about 10 nM, about 9 to about 10 nM, or about 9.5 to about 10 nM, or *e.g.*, about 0.1 to about 9.5 nM, about 0.5 to about 9 nM, about 1 to about 8.5 nM, about 1.5 to about 8 nM, about 2 to about 7.5 nM, about 2.5 to about 7 nM, about 3 to about 6.5 nM, about 3.5 to about 6 nM, about 4 to about 5.5 nM, or about 4.5 to about 5 nM, or *e.g.*, greater than about 0.1, about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, or about 10 nM, *e.g.*, as determined by bio-layer interferometry (*e.g.*, Octet binding) and/or surface plasmon resonance (*e.g.*, Biacore);
- i) Has reduced or decreased binding affinity for CD122/CD132 heterodimer (*e.g.*, human CD122/CD132 heterodimer), *e.g.*, decreased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100%, or more (*e.g.*, about 1% to about 50%, about 2% to about 40%, about 3% to about 30%, about 4% to about 20%, or about 5% to about 10%, about 1% to about 40%, about 1% to about 30%, about 1% to about 20%, about 1% to about 10%, about 40% to about 50%, about 30% to about

- 50%, about 20% to about 50%, about 10% to about 50%, about 10% to about 20%, about 20% to about 30%, about 30% to about 40%, about 10% to about 30%, or 20% to about 40%), or decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, or more (*e.g.*, about 0.5-fold to about 5-fold, about 1-fold to about 4-fold, or about 2-fold to about 3-fold), *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined by yeast surface display, bio-layer interferometry (*e.g.* Octet binding), and/or surface plasmon resonance (*e.g.* Biacore);
- 10 j) Binds to CD122/CD132 heterodimer (*e.g.*, human CD122/CD132 heterodimer) with low affinity, *e.g.*, with a dissociation constant (K_D) of about 0.2-20 nM, *e.g.*, about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1, about 1.1, about 1.2, about 1.3, about 1.4, about 1.5, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, about 10, about 11, about 12, about 13, about 14, about 15, about 16, about 17, about 18, or about 20 nM, or *e.g.*, about 0.2 to about 19 nM, about 0.2 to about 18 nM, about 0.2 to about 17 nM, or about 0.2 to about 16 nM, *e.g.*, about 0.2 to about 15 nM, about 0.1 to about 4 nM, about 0.1 to about 3 nM, about 0.1 to about 2 nM, about 0.1 to about 1 nM, or about 0.1 to about 0.5 nM, or *e.g.*, about 0.1 to about 10 nM, about 0.5 to about 10 nM, about 1 to about 10 nM, about 1.5 to about 10 nM, about 2 to about 10 nM, about 2.5 to about 10 nM, about 3 to about 10 nM, about 3.5 to about 10 nM, about 4 to about 10 nM, about 4.5 to about 10 nM, about 5 to about 10 nM, about 5.5 to about 10 nM, about 6 to about 10 nM, about 6.5 to about 10 nM, about 7 to about 10 nM, about 7.5 to about 10 nM, about 8 to about 10 nM, about 8.5 to about 10 nM, about 9 to about 10 nM, or about 9.5 to about 10 nM, or *e.g.*, about 0.1 to about 9.5 nM, about 0.5 to about 9 nM, about 1 to about 8.5 nM, about 1.5 to about 8 nM, about 2 to about 7.5 nM, about 2.5 to about 7 nM, about 3 to about 6.5 nM, about 3.5 to about 6 nM, about 4 to about 5.5 nM, or about 4.5 to about 5 nM, or *e.g.*, greater than about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1, about 1.1, about 1.2, about 1.3, about 1.4, about 1.5, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, about 10, about 11, about 12, about 13, about 14, about 15, about 16, about 17, about 18, or about 20 nM, *e.g.*, as determined by yeast surface display.
- 25 k) Binds to CD122/CD132 heterodimer (*e.g.*, human CD122/CD132 heterodimer) with low affinity, *e.g.*, with a dissociation constant (K_D) of about 0.2-300 nM, *e.g.*, about 0.2 nM, about 0.5 nM, about 1 nM, about 2 nM, about 5 nM, about 10 nM, about 15 nM, about 20 nM, about 25 nM, about 30 nM, about 40 nM, about 50 nM, about 60 nM, about 70 nM, about 80 nM, about 90 nM, about 100 nM, about 110 nM, about 120 nM, about 130 nM,

- about 140 nM, about 150 nM, about 160 nM, about 170 nM, about 180 nM, about 190 nM, about 200 nM, about 210 nM, about 220 nM, about 230 nM, about 240 nM, about 250 nM, about 260 nM, about 270 nM, about 280 nM, about 290 nM, or about 300 nM, or *e.g.*, About 0.2 to about 280 nM, about 0.2 to about 260 nM, about 0.2 to about 240 nM, about 0.2 to about 220 nM, about 0.2 to about 200 nM, about 0.2 to about 180 nM, about 0.2 to about 160 nM, about 0.2 to about 140 nM, about 0.2 to about 120 nM, about 0.2 to about 100 nM, about 0.2 to about 80 nM, about 0.2 to about 60 nM, about 0.2 to about 40 nM, about 0.2 to about 20 nM, or *e.g.*, about 0.5 to about 300 nM, about 1 to about 300 nM, about 5 to about 300 nM, about 10 to about 300 nM, about 20 to about 300 nM, about 40 to about 300 nM, about 60 to about 300 nM, about 80 to about 300 nM, about 100 to about 300 nM, about 120 to about 300 nM, about 140 to about 300 nM, about 160 to about 300 nM, about 180 to about 300 nM, about 200 to about 300 nM, about 220 to about 300 nM, about 240 to about 300 nM, about 260 to about 300 nM, about 280 to about 300 nM, or *e.g.*, about 0.5 to about 280 nM, about 1 to about 260 nM, about 5 to about 240 nM, about 10 to about 220 nM, about 20 to about 200 nM, about 40 to about 180 nM, about 60 to about 160 nM, about 80 to about 140 mM, about 100 to about 120 nM, or *e.g.*, greater than about 0.2, about 0.5, about 1, about 2, about 5, about 10, about 15, about 20 nM, about 25 nM, about 30 nM, about 40 nM, about 50 nM, about 60 nM, about 70 nM, about 80 nM, about 90 nM, about 100 nM, about 110 nM, about 120 nM, about 130 nM, about 140 nM, about 150 nM, about 160 nM, about 170 nM, about 180 nM, about 190 nM, about 200 nM, about 210 nM, about 220 nM, about 230 nM, about 240 nM, about 250 nM, about 260 nM, about 270 nM, about 280 nM, about 290 nM, or greater than about 300 nM, *e.g.*, as determined by biolayer interferometry (*e.g.* Octet binding) and/or surface plasmon resonance (*e.g.* Biacore);
- l) Selectively activates IL-2 signaling in T regulatory cells *in vitro* and/or *in vivo*, *e.g.*, having an T helper EC₅₀/Treg EC₅₀ ratio greater than about 1, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, about 10, about 11, about 12, about 13, about 14, about 15, about 16, about 17, about 18, about 19, about 20, about 21, about 22, about 23, about 24, about 25, about 26, about 27, about 28, about 29, about 30, about 35, about 40, about 45, about 50, about 55, about 60, about 65, about 70, about 75, about 80, about 85, about 90, about 95, about 100, about 150, about 200, about 250, about 300, about 350, about 400, about 450, about 500, about 600, about 700, about 800, about 900, about 1000, about 1500, about 2000, about 2500, or about 3000, or more, or *e.g.*, greater than 1 and about 1 to 2, about 2 to 3, about 3 to 4, about 4 to 5, greater than 1 and about 1 to 10, greater than 1 and about 1 to 20, greater than 1 and about 1 to 30, greater than 1 and about 1 to 40, greater than 1 and about 1 to 50, about 2 to 10, about 2 to 20, about 2 to 30, about 2 to 40, 2 to 50, about 5 to 10, about 5 to 20, about 5 to 30, about 5 to 40, about 5 to 50,

- about 10 to 20, about 10 to 30, about 10 to 40 about 10 to 50, about 20 to 40, about 20 to 50, about 50 to 100, about 100 to 200, about 200 to 500, about 500 to 1000, about 1000 to 2000, or about 1000 to 3000, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined flow cytometry;
- 5 m) Selectively activates IL-2 signaling in T regulatory cells *in vitro* and/or *in vivo*, *e.g.*, having an NK cell EC₅₀/Treg EC₅₀ ratio greater than about 1, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, about 10, about 11, about 12, about 13, about 14, about 15, about 16, about 17, about 18, about 19, about 20, about 21, about 22, about 23, about 24, about 25, about 26, about 27, about 28, about 29, about 30, about 35, about 40, about 45, about 50, about 55, about 60, about 65, about 70, about 75, about 80, about 85, about 90, about 95, about 100, about 150, about 200, about 250, about 300, about 350, about 400, about 450, about 500, about 600, about 700, about 800, about 900, about 1000, about 1500, about 2000, about 2500, or about 3000, or more, or *e.g.*, greater than 1 and about 1 to 2, about 2 to 3, about 3 to 4, about 4 to 5, greater than 1 and about 1 to 10, 15 greater than 1 and about 1 to 20, greater than 1 and about 1 to 30, greater than 1 and about 1 to 40, greater than 1 and about 1 to 50, about 2 to 10, about 2 to 20, about 2 to 30, about 2 to 40, 2 to 50, about 5 to 10, about 5 to 20, about 5 to 30, about 5 to 40, about 5 to 50, about 10 to 20, about 10 to 30, about 10 to 40 about 10 to 50, about 20 to 40, about 20 to 50, about 50 to 100, about 100 to 200, about 200 to 500, about 500 to 1000, about 1000 to 2000, or about 1000 to 3000, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined flow cytometry;
- 20 n) (i) Has enhanced or increased potency and/or ability to induce or promote T regulatory cell activity, *e.g.*, having an EC₅₀ for Tregs that is lower by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, 25 about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, 30 about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined flow cytometry, a T regulatory cell proliferation or expansion assay *in vitro* or *in vivo*, and/or a T cell suppression assay;
- 35 (ii) Has reduced or decreased potency and/or ability to induce or promote T regulatory cell activity, *e.g.*, having an EC₅₀ for Tregs that is higher by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about

- 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, about 50-fold, about 100-fold, about 200-fold, about 500-fold, about 1000-fold, about 2000-fold, about 5000-fold, about 10,000-fold, about 15,000-fold, about 20,000-fold or more *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined flow cytometry, a T regulatory cell proliferation or expansion assay *in vitro* or *in vivo*, and/or a T cell suppression assay;
- o) Modulates (*e.g.*, reduces (*e.g.*, inhibits, blocks, or neutralizes) or increases (*e.g.*, activates, initiates, or enhances) one or more biological activities of a T cell (*e.g.*, Treg), *in vitro*, *ex vivo*, or *in vivo*;
- p) Shows the same or similar binding affinity or specificity, or both, as an IL-2 agent described herein;
- q) Shows the same or similar binding affinity or specificity, or both, as an IL-2 agent comprising one or more (*e.g.*, 2, 3, 4, 5, 6, 7, 8, 9, 10, or more) alterations (*e.g.*, substitutions) described herein;
- r) Shows the same or similar binding affinity or specificity, or both, as an IL-2 agent comprising an amino acid sequence described herein;
- s) Shows the same or similar binding affinity or specificity, or both, as an IL-2 agent comprising an amino acid sequence encoded by a nucleotide sequence described herein;
- t) Inhibits, *e.g.*, competitively inhibits, the binding of a second IL-2 agent to an IL-2 receptor, wherein the second IL-2 agent is an IL-2 agent described herein;
- u) Competes for binding to an IL-2 receptor with a second IL-2 agent, wherein the second IL-2 agent is an IL-2 agent described herein;
- v) Has one or more biological properties of an IL-2 agent described herein;
- w) Has one or more structural properties of an IL-2 agent described herein; or
- x) Has one or more pharmacokinetic properties of an IL-2 agent described herein.
- In an embodiment, the IL-2 agent is expressed at a higher or increased level *in vitro* and/or *in vivo*, *e.g.*, increased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100%, or more, or by increased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, or more, *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent

comprising a reference IL-2 variant, *e.g.*, as by an assay of protein concentration. In an embodiment, the IL-2-agent aggregates at lower or decreased level *in vitro* and/or *in vivo*, *e.g.*, decreased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%,
5 about 75%, about 80%, about 85%, about 90%, about 95%, about 100%, or more, or decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, or more *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2
10 variant, *e.g.*, as determined by melting temperature analysis (*e.g.*, using fluorimetry), dynamic light scattering, and/or size-exclusion chromatography.

In an embodiment, the IL-2 agent has enhanced or increased stability *in vitro* and/or *in vivo*, *e.g.*, increased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%,
15 about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100%, or more, or increased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, or more, *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent
20 comprising a reference IL-2 variant, *e.g.*, as determined by expression in yeast surface display, expression in mammalian cells, chromatography, circular dichroism or related spectroscopic technical, and/or melting temperature analysis (*e.g.*, using fluorimetry).

In an embodiment the IL-2 agent as enhanced or increased half-life *in vitro* and/or *in vivo*, *e.g.*, increased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%,
25 about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100%, or more, or greater than about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about
30 10-fold, or more, *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant, *e.g.*, as determined by ELISA, flow cytometry, and/or mass spectrometry.

In an embodiment, the IL-2 agent has a lower, reduced or decreased rate or level of turnover and/or clearance *in vivo*, *e.g.*, decreased by about 1%, about 2%, about 3%, about 4%, about 5%,
35 about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100%, or more, or decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about

2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, or more, *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant, *e.g.*, as determined by ELISA, flow cytometry, and/or mass spectrometry.

In an embodiment, the IL-2 agent has reduced or decreased or substantially unchanged binding affinity for CD25 (*e.g.*, human CD25), *e.g.*, decreased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100%, or more (*e.g.*, about 1% to about 20%, about 2% to about 15%, or about 5% to about 10%), or decreased or increased by no more than about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, or about 50%, or decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, or more, or decreased or increased by no more than about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, or about 5-fold, *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined by yeast surface display, bio-layer interferometry (*e.g.* Octet binding), and/or surface plasmon resonance (*e.g.* Biacore). In an embodiment, the reduction or decrease of binding affinity for CD25 is at least 10%, 20%, 30%, 40%, 50%, 60%, 70%, or 80% lower than the reduction or decrease of binding affinity for CD25. In an embodiment, the binding affinity for CD25 is not substantially reduced or decreased.

In an embodiment, the IL-2 agent binds to CD25 (*e.g.*, human CD25) with low affinity, *e.g.*, with a dissociation constant (KD) of about 5-500 pM, *e.g.*, about 5, about 10, about 15, about 20, about 25, about 30, about 35, about 40, about 45, about 50, about 55, about 60, about 65, about 70, about 75, about 80, about 85, about 90, about 95, about 100, about 105, about 110, about 115, about 120, about 125, about 130, about 135, about 140, about 145, about 150, about 200, about 250, about 300, about 350, about 400, about 450, or about 500 pM, or *e.g.*, about 10 pM to about 490 pM, about 20 pM to about 480 pM, about 30 pM to about 470 pM, about 40 pM to about 460 pM, about 50 pM to about 450 pM, about 60 pM to about 440 pM, about 70 pM to about 430 pM, about 80 pM to about 420 pM, about 90 pM to about 410 pM, about 100 pM to about 400 pM, about 110 pM to about 390 pM, about 120 pM to about 380 pM, about 130 pM to about 370 pM, about 140 pM to about 360 pM, about 150 pM to about 350 pM, about 160 pM to about 340 pM, about 170 pM to about 330 pM, about 180 pM to about 320 pM, about 190 pM to about 310 pM, about 200 pM to about 300 pM, about 210 pM to about 290 pM, about 220 pM to about 280 pM, about 230 pM to about 270 pM, about 240 pM to about 260 pM, or *e.g.*, about 5 pM to about 450 pM, about 5 pM to about 400 pM,

about 5 pM to about 350 pM, about 5 pM to about 300 pM, about 5 pM to about 250 pM, about 5 pM to about 200 pM, about 5 pM to about 150 pM, about 5 pM to about 100 pM, about 5 pM to about 50 pM, or *e.g.*, about 10 pM to about 500 pM, about 20 pM to about 500 pM, about 50 pM to about 500 pM, about 100 pM to about 500 pM, about 150 pM to about 500 pM, about 200 pM to about 500 pM, about 250 pM to about 500 pM, about 300 pM to about 500 pM, about 350 pM to about 500 pM, about 400 pM to about 500 pM, about 450 pM to about 500 pM, or *e.g.*, greater than about 5, about 10, about 15, about 20, about 25, about 30, about 35, about 40, about 45, about 50, about 55, about 60, about 65, about 70, about 75, about 80, about 85, about 90, about 95, about 100, about 105, about 110, about 115, about 120, about 125, about 130, about 135, about 140, about 145, about 150, about 200, about 250, about 300, about 350, about 400, about 450, or about 500 pM, *e.g.* as determined yeast surface display.

In an embodiment, the IL-2 agent binds to CD25 (*e.g.*, human CD25) with low affinity, *e.g.*, with a dissociation constant (KD) of about 0.1-10 nM, *e.g.*, about 0.1, about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1, about 1.5, about 2, about 2.5, about 3, about 3.5, about 4, about 4.5, about 5, about 6, about 7, about 8, about 9, or about 10 nM, or *e.g.*, about 0.1 to about 9 nM, about 0.1 to about 8 nM, about 0.1 to about 7 nM, or about 0.1 to about 6 nM, *e.g.*, about 0.1 to about 5 nM, about 0.1 to about 4 nM, about 0.1 to about 3 nM, about 0.1 to about 2 nM, about 0.1 to about 1 nM, or about 0.1 to about 0.5 nM, or *e.g.*, about 0.1 to about 10 nM, about 0.5 to about 10 nM, about 1 to about 10 nM, about 1.5 to about 10 nM, about 2 to about 10 nM, about 2.5 to about 10 nM, about 3 to about 10 nM, about 3.5 to about 10 nM, about 4 to about 10 nM, about 4.5 to about 10 nM, about 5 to about 10 nM, about 5.5 to about 10 nM, about 6 to about 10 nM, about 6.5 to about 10 nM, about 7 to about 10 nM, about 7.5 to about 10 nM, about 8 to about 10 nM, about 8.5 to about 10 nM, about 9 to about 10 nM, or about 9.5 to about 10 nM, or *e.g.*, about 0.1 to about 9.5 nM, about 0.5 to about 9 nM, about 1 to about 8.5 nM, about 1.5 to about 8 nM, about 2 to about 7.5 nM, about 2.5 to about 7 nM, about 3 to about 6.5 nM, about 3.5 to about 6 nM, about 4 to about 5.5 nM, or about 4.5 to about 5 nM, or *e.g.*, greater than about 0.1, about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, or about 10 nM, *e.g.*, as determined by bio-layer interferometry (*e.g.*, Octet binding) and/or surface plasmon resonance (*e.g.* Biacore).

In an embodiment, the IL-2 agent has reduced or decreased binding affinity for CD122/CD132 heterodimer (*e.g.*, human CD122/CD132 heterodimer), *e.g.*, decreased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100%, or more (*e.g.*, about 1% to about 50%, about 2% to about 40%, about 3% to about 30%, about 4% to about 20%, or about 5% to about 10%, about 1% to about 40%, about 1% to about 30%, about 1% to about 20%, about 1% to about 10%, about 40% to about 50%, about 30% to about 50%, about 20% to about 50%, about 10% to

about 50%, about 10% to about 20%, about 20% to about 30%, about 30% to about 40%, about 10% to about 30%, or 20% to about 40%), or decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, or more (*e.g.*, about 0.5-fold to about 5-fold, about 1-fold to about 4-fold, or about 2-fold to about 3-fold), *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined by yeast surface display, bio-layer interferometry (*e.g.* Octet binding), and/or surface plasmon resonance (*e.g.* Biacore). In an embodiment, the reduction or decrease of binding affinity for CD122/CD132 heterodimer is at least 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, or 5-fold higher than the reduction or decrease of binding affinity for CD25. In an embodiment, the binding affinity for CD25 is not substantially reduced or decreased.

In an embodiment, the IL-2 agent binds to CD122/CD132 heterodimer (*e.g.*, human CD122/CD132 heterodimer) with low affinity, *e.g.*, with a dissociation constant (KD) of about 0.2-20 nM, *e.g.*, about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1, about 1.1, about 1.2, about 1.3, about 1.4, about 1.5, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, about 10, about 11, about 12, about 13, about 14, about 15, about 16, about 17, about 18, or about 20 nM, or *e.g.*, about 0.2 to about 19 nM, about 0.2 to about 18 nM, about 0.2 to about 17 nM, or about 0.2 to about 16 nM, *e.g.*, about 0.2 to about 15 nM, about 0.1 to about 4 nM, about 0.1 to about 3 nM, about 0.1 to about 2 nM, about 0.1 to about 1 nM, or about 0.1 to about 0.5 nM, or *e.g.*, about 0.1 to about 10 nM, about 0.5 to about 10 nM, about 1 to about 10 nM, about 1.5 to about 10 nM, about 2 to about 10 nM, about 2.5 to about 10 nM, about 3 to about 10 nM, about 3.5 to about 10 nM, about 4 to about 10 nM, about 4.5 to about 10 nM, about 5 to about 10 nM, about 5.5 to about 10 nM, about 6 to about 10 nM, about 6.5 to about 10 nM, about 7 to about 10 nM, about 7.5 to about 10 nM, about 8 to about 10 nM, about 8.5 to about 10 nM, about 9 to about 10 nM, or about 9.5 to about 10 nM, or *e.g.*, about 0.1 to about 9.5 nM, about 0.5 to about 9 nM, about 1 to about 8.5 nM, about 1.5 to about 8 nM, about 2 to about 7.5 nM, about 2.5 to about 7 nM, about 3 to about 6.5 nM, about 3.5 to about 6 nM, about 4 to about 5.5 nM, or about 4.5 to about 5 nM, or *e.g.*, greater than about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1, about 1.1, about 1.2, about 1.3, about 1.4, about 1.5, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, about 10, about 11, about 12, about 13, about 14, about 15, about 16, about 17, about 18, or about 20 nM, *e.g.*, as determined by yeast surface display.

In an embodiment, the IL-2 agent binds to CD122/CD132 heterodimer (*e.g.*, human CD122/CD132 heterodimer) with low affinity, *e.g.*, with a dissociation constant (KD) of about 0.2-300 nM, *e.g.*, about 0.2 nM, about 0.5 nM, about 1 nM, about 2 nM, about 5 nM, about 10 nM, about 15 nM, about 20 nM, about 25 nM, about 30 nM, about 40 nM, about 50 nM, about 60 nM, about 70 nM, about 80 nM, about 90 nM, about 100 nM, about 110 nM, about 120 nM, about 130 nM, about 140 nM, about 150 nM, about 160 nM, about 170 nM, about 180 nM, about 190 nM, about 200 nM,

about 210 nM, about 220 nM, about 230 nM, about 240 nM, about 250 nM, about 260 nM, about 270 nM, about 280 nM, about 290 nM, or about 300 nM, or *e.g.*, about 0.2 to about 280 nM, about 0.2 to about 260 nM, about 0.2 to about 240 nM, about 0.2 to about 220 nM, about 0.2 to about 200 nM, about 0.2 to about 180 nM, about 0.2 to about 160 nM, about 0.2 to about 140 nM, about 0.2 to about 120 nM, about 0.2 to about 100 nM, about 0.2 to about 80 nM, about 0.2 to about 60 nM, about 0.2 to about 40 nM, about 0.2 to about 20 nM, or *e.g.*, about 0.5 to about 300 nM, about 1 to about 300 nM, about 5 to about 300 nM, about 10 to about 300 nM, about 20 to about 300 nM, about 40 to about 300 nM, about 60 to about 300 nM, about 80 to about 300 nM, about 100 to about 300 nM, about 120 to about 300 nM, about 140 to about 300 nM, about 160 to about 300 nM, about 180 to about 300 nM, about 200 to about 300 nM, about 220 to about 300 nM, about 240 to about 300 nM, about 260 to about 300 nM, about 280 to about 300 nM, or *e.g.*, about 0.5 to about 280 nM, about 1 to about 260 nM, about 5 to about 240 nM, about 10 to about 220 nM, about 20 to about 200 nM, about 40 to about 180 nM, about 60 to about 160 nM, about 80 to about 140 nM, about 100 to about 120 nM, or *e.g.*, greater than about 0.2, about 0.5, about 1, about 2, about 5, about 10, about 15, about 20 nM, about 25 nM, about 30 nM, about 40 nM, about 50 nM, about 60 nM, about 70 nM, about 80 nM, about 90 nM, about 100 nM, about 110 nM, about 120 nM, about 130 nM, about 140 nM, about 150 nM, about 160 nM, about 170 nM, about 180 nM, about 190 nM, about 200 nM, about 210 nM, about 220 nM, about 230 nM, about 240 nM, about 250 nM, about 260 nM, about 270 nM, about 280 nM, about 290 nM, or greater than about 300 nM, *e.g.*, as determined by biolayer interferometry (*e.g.* Octet binding) and/or surface plasmon resonance (*e.g.* Biacore).

In an embodiment, the IL-2 agent selectively activates IL-2 signaling in T regulatory cells *in vitro* and/or *in vivo*, *e.g.*, having an T helper EC50/Treg EC50 ratio greater than about 1, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, about 10, about 11, about 12, about 13, about 14, about 15, about 16, about 17, about 18, about 19, about 20, about 21, about 22, about 23, about 24, about 25, about 26, about 27, about 28, about 29, about 30, about 35, about 40, about 45, about 50, about 55, about 60, about 65, about 70, about 75, about 80, about 85, about 90, about 95, about 100, about 150, about 200, about 250, about 300, about 350, about 400, about 450, about 500, about 600, about 700, about 800, about 900, about 1000, about 1500, about 2000, about 2500, or about 3000, or more, or *e.g.*, greater than 1 and about 1 to 2, about 2 to 3, about 3 to 4, about 4 to 5, greater than 1 and about 1 to 10, greater than 1 and about 1 to 20, greater than 1 and about 1 to 30, greater than 1 and about 1 to 40, greater than 1 and about 1 to 50, about 2 to 10, about 2 to 20, about 2 to 30, about 2 to 40, 2 to 50, about 5 to 10, about 5 to 20, about 5 to 30, about 5 to 40, about 5 to 50, about 10 to 20, about 10 to 30, about 10 to 40 about 10 to 50, about 20 to 40, about 20 to 50, about 50 to 100, about 100 to 200, about 200 to 500, about 500 to 1000, about 1000 to 2000, or about 1000 to 3000, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined flow cytometry. In an embodiment, the T helper cell is a

CD45+CD3+CD4+Foxp3- cell, *e.g.*, determined by flow cytometry. In an embodiment, the Treg is CD45+CD3+CD4+Foxp3+ cell, *e.g.*, determined by flow cytometry.

In an embodiment, the IL-2 agent selectively activates IL-2 signaling in T regulatory cells *in vitro* and/or *in vivo*, *e.g.*, having an NK cell EC50/Treg EC50 ratio greater than about 1, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, about 10, about 11, about 12, about 13, about 14, about 15, about 16, about 17, about 18, about 19, about 20, about 21, about 22, about 23, about 24, about 25, about 26, about 27, about 28, about 29, about 30, about 35, about 40, about 45, about 50, about 55, about 60, about 65, about 70, about 75, about 80, about 85, about 90, about 95, about 100, about 150, about 200, about 250, about 300, about 350, about 400, about 450, about 500, about 600, about 700, about 800, about 900, about 1000, about 1500, about 2000, about 2500, or about 3000, or more, or *e.g.*, greater than 1 and about 1 to 2, about 2 to 3, about 3 to 4, about 4 to 5, greater than 1 and about 1 to 10, greater than 1 and about 1 to 20, greater than 1 and about 1 to 30, greater than 1 and about 1 to 40, greater than 1 and about 1 to 50, about 2 to 10, about 2 to 20, about 2 to 30, about 2 to 40, 2 to 50, about 5 to 10, about 5 to 20, about 5 to 30, about 5 to 40, about 5 to 50, about 10 to 20, about 10 to 30, about 10 to 40 about 10 to 50, about 20 to 40, about 20 to 50, about 50 to 100, about 100 to 200, about 200 to 500, about 500 to 1000, about 1000 to 2000, or about 1000 to 3000, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined flow cytometry. In an embodiment, the NK cell is a CD45+CD3- cell that is CD56+ and/or CD16+, *e.g.*, determined by flow cytometry. In an embodiment, the NK cell is a CD45+CD3-CD56+ cell, *e.g.*, determined by flow cytometry. In an embodiment, the Treg is CD45+CD3+CD4+Foxp3+ cell, *e.g.*, determined by flow cytometry.

In an embodiment, the IL-2 agent has enhanced or increased potency and/or ability to induce or promote T regulatory cell activity, *e.g.*, having an EC50 for Tregs that is lower by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined flow cytometry, a T regulatory cell proliferation or expansion assay *in vitro* or *in vivo*, and/or a T cell suppression assay.

In an embodiment, the IL-2 agent as reduced or decreased potency and/or ability to induce or promote T regulatory cell activity, *e.g.*, having an EC50 for Tregs that is higher by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, decreased by about 0.5-

fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, about 50-fold, about 100-fold, about 200-fold, about 500-fold, about 1000-fold, about 2000-fold, about 5000-fold, about 10,000-fold, about 15,000-fold, about 20,000-fold or more *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined flow cytometry, a T regulatory cell proliferation or expansion assay *in vitro* or *in vivo*, and/or a T cell suppression assay. In an embodiment, the IL-2 agent has reduced or decreased potency and/or ability to induce or promote T regulatory cell activity, *e.g.*, having an EC50 for Tregs that is higher by about 100-fold or more, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant (*e.g.*, as determined flow cytometry, a T regulatory cell proliferation or expansion assay *in vitro* or *in vivo*, and/or a T cell suppression assay), and does not activate, or does not significantly activate, NK cells.

In an embodiment, the IL-2 agent modulates (*e.g.*, reduces (*e.g.*, inhibits, blocks, or neutralizes) or increases (*e.g.*, activates, initiates, or enhances) one or more biological activities of a T cell (*e.g.*, Treg), *in vitro*, *ex vivo*, or *in vivo*.

In an embodiment, the IL-2 agent shows the same or similar binding affinity or specificity, or both, as an IL-2 agent described herein.

In an embodiment, the IL-2 agent shows the same or similar binding affinity or specificity, or both, as an IL-2 agent comprising one or more (*e.g.*, 2, 3, 4, 5, 6, 7, 8, 9, 10, or more) alterations (*e.g.*, substitutions) described herein.

In an embodiment, the IL-2 agent shows the same or similar binding affinity or specificity, or both, as an IL-2 agent comprising an amino acid sequence described herein.

In an embodiment, the IL-2 agent shows the same or similar binding affinity or specificity, or both, as an IL-2 agent comprising an amino acid sequence encoded by a nucleotide sequence described herein.

In an embodiment, the IL-2 agent inhibits, *e.g.*, competitively inhibits, the binding of a second IL-2 agent to an IL-2 receptor, wherein the second IL-2 agent is an IL-2 agent described herein.

In an embodiment, the IL-2 agent competes for binding to an IL-2 receptor with a second IL-2 agent, wherein the second IL-2 agent is an IL-2 agent described herein.

In an embodiment, the IL-2 agent has one or more biological properties of an IL-2 agent described herein.

In an embodiment, the IL-2 agent has one or more structural properties of an IL-2 agent described herein.

In an embodiment, the IL-2 agent has one or more pharmacokinetic properties of an IL-2 agent described herein.

In an embodiment, the interleukin-2 (IL-2) agent comprises a human IL-2 variant comprising an amino acid alteration (*e.g.*, substitution) at one or more (*e.g.*, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or all) position(s) chosen from: T3, H16, I28, K35, R38, F42, E68, V69, Q74, D84, S87, N88, I92, C125, Q126, or a combination thereof, *e.g.*, corresponding to wild-type human IL-2. In another

5 embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, or a combination thereof. In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at positions V69 and Q74. In an embodiment, the IL-2 agent comprises the amino acid substitution V69A. In an embodiment, the IL-2 agent comprises the amino acid substitution Q74P. In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at

10 position H16, I92, D84, or a combination thereof. In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position H16, optionally wherein the amino acid substitution is H16N, H16L, or H16D. In an embodiment, the IL-2 agent comprises the amino acid substitution H16N. In an embodiment, the IL-2 agent comprises the amino acid substitution H16L. In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position at

15 I92, optionally wherein the amino acid substitution is I92S. In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position D84, optionally wherein the amino acid substitution is D84V. In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position K35, R38, F42, E68, or a combination thereof. In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position K35, optionally wherein the

20 amino acid substitution is K35E. In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position R38, optionally wherein the amino acid substitution is R38E, R38N or R38Q. In an embodiment, the IL-2 agent comprises the amino acid substitution R38N. In an embodiment, the IL-2 agent comprises the amino acid substitution R38Q. In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position F42, optionally wherein the

25 amino acid substitution is F42K or F42Q. In an embodiment, the IL-2 agent comprises the amino acid substitution F42Q.

In an embodiment, the IL-2 agent comprises one or more (*e.g.*, two, three, four, or all) of (i)-(v):

- (i) one or more (*e.g.*, two, three, four, five, six, or seven) amino acid alterations (*e.g.*,
- 30 substitutions) that reduce, or are identified to reduce, its affinity for CD122 (*e.g.*, CD122/CD132 heterodimer), *e.g.*, an alteration (*e.g.*, substitution) at position H16 (*e.g.*, H16L, H16N, or H16D), I28 (*e.g.*, I28T or I28F), D84 (*e.g.*, D84V), S87 (*e.g.*, S87R), N88 (*e.g.*, N88S, N88L, or N88D), I92 (*e.g.*, I92S), and/or Q126 (*e.g.*, Q126T, Q126K, or Q126R);
- (ii) one or more (*e.g.*, two) amino acid alterations (*e.g.*, substitutions) that increase, or are
- 35 identified to increase, the stability of the IL-2 agent, *e.g.*, an alteration (*e.g.*, substitution) at position V69 (*e.g.*, V69A) and/or Q74 (*e.g.*, Q74P);

(iii) one or more (*e.g.*, two, three, or four) amino acid alterations (*e.g.*, substitutions) that reduce, or are identified to reduce, its affinity for CD25, *e.g.*, an alteration (*e.g.*, substitution) at position K35 (*e.g.*, K35E), R38 (*e.g.*, R38E, R38N, or R38Q), F42 (*e.g.*, F42K or F42Q), and/or E68 (*e.g.*, E68Q or E68N); or

5 (iv) one or more amino acid alterations (*e.g.*, substitutions) that reduce, or are identified to reduce, O-glycosylation of the IL-2 agent, *e.g.*, an alteration (*e.g.*, substitution) at position T3 (*e.g.*, T3A); or

(v) one or more amino acid alterations (*e.g.*, substitutions) that reduce, or are identified to reduce, incorrect disulfide pairing and/or aggregation (*e.g.*, to improve stability) of the IL-2 agent,
10 *e.g.*, an alteration (*e.g.*, substitution) at position C125 (*e.g.*, C125S).

In an embodiment, the IL-2 agent comprises (i). In an embodiment, the IL-2 agent comprises (ii). In an embodiment, the IL-2 agent comprises (iii). In an embodiment, the IL-2 agent comprises (iv). In an embodiment, the IL-2 agent comprises (v).

In an embodiment, the IL-2 agent comprises (i) and (ii). In an embodiment, the IL-2 agent
15 comprises (i) and (iii). In an embodiment, the IL-2 agent comprises (i) and (iv). In an embodiment, the IL-2 agent comprises (i) and (v). In an embodiment, the IL-2 agent comprises (ii) and (iii). In an embodiment, the IL-2 agent comprises (ii) and (iv). In an embodiment, the IL-2 agent comprises (ii) and (v). In an embodiment, the IL-2 agent comprises (iii) and (iv). In an embodiment, the IL-2 agent comprises (iii) and (v). In an embodiment, the IL-2 agent comprises (iv) and (v).

20 In an embodiment, the IL-2 agent comprises (i), (ii), and (iii). In an embodiment, the IL-2 agent comprises (i), (ii), and (iv). In an embodiment, the IL-2 agent comprises (i), (ii), and (v). In an embodiment, the IL-2 agent comprises (i), (iii), and (iv). In an embodiment, the IL-2 agent comprises (i), (iii), and (v). In an embodiment, the IL-2 agent comprises (i), (iv), and (v). In an embodiment, the IL-2 agent comprises (ii), (iii), and (iv). In an embodiment, the IL-2 agent comprises (ii), (iii), and
25 (v). In an embodiment, the IL-2 agent comprises (ii), (iv), and (v). In an embodiment, the IL-2 agent comprises (iii), (iv), and (v).

In an embodiment, the IL-2 agent comprises (i), (ii), (iii), and (iv). In an embodiment, the IL-2 agent comprises (i), (ii), (iii), and (v). In an embodiment, the IL-2 agent comprises (i), (ii), (iv), and (v). In an embodiment, the IL-2 agent comprises (i), (iii), (iv), and (v). In an embodiment, the IL-2
30 agent comprises (ii), (iii), (iv), and (v).

In an embodiment, the IL-2 agent comprises (i), (ii), (iii), (iv), and (v).

In an embodiment, the IL-2 agent does not comprise (i). In an embodiment, the IL-2 agent does not comprise (ii). In an embodiment, the IL-2 agent does not comprise (iii). In an embodiment, the IL-2 agent does not comprise (iv). In an embodiment, the IL-2 agent does not comprise (v).

35 In an embodiment, the IL-2 agent does not comprise (i) and (ii). In an embodiment, the IL-2 agent does not comprise (i) and (iii). In an embodiment, the IL-2 agent does not comprise (i) and (iv). In an embodiment, the IL-2 agent does not comprise (i) and (v). In an embodiment, the IL-2 agent

does not comprise (ii) and (iii). In an embodiment, the IL-2 agent does not comprise (ii) and (iv). In an embodiment, the IL-2 agent does not comprise (ii) and (v). In an embodiment, the IL-2 agent does not comprise (iii) and (iv). In an embodiment, the IL-2 agent does not comprise (iii) and (v). In an embodiment, the IL-2 agent does not comprise (iv) and (v).

5 In an embodiment, the IL-2 agent does not comprise (i), (ii), and (iii). In an embodiment, the IL-2 agent does not comprise (i), (ii), and (iv). In an embodiment, the IL-2 agent does not comprise (i), (ii), and (v). In an embodiment, the IL-2 agent does not comprise (i), (iii), and (iv). In an embodiment, the IL-2 agent does not comprise (i), (iii), and (v). In an embodiment, the IL-2 agent does not comprise (i), (iv), and (v). In an embodiment, the IL-2 agent does not comprise (ii), (iii), and (iv). In an embodiment, the IL-2 agent does not comprise (ii), (iii), and (v). In an embodiment, the IL-2 agent does not comprise (ii), (iv), and (v). In an embodiment, the IL-2 agent does not comprise (iii), (iv), and (v).

In an embodiment, the IL-2 agent does not comprise (i), (ii), (iii), and (iv). In an embodiment, the IL-2 agent does not comprise (i), (ii), (iii), and (v). In an embodiment, the IL-2 agent does not comprise (i), (ii), (iv), and (v). In an embodiment, the IL-2 agent does not comprise (i), (iii), (iv), and (v). In an embodiment, the IL-2 agent does not comprise (ii), (iii), (iv), and (v).

In an embodiment, the IL-2 agent does not comprise (i), (ii), (iii), (iv), and (v).

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution):

- (i) at position V69 and Q74, and/or at position K35; and
- 20 (ii) at position H16, I92, or D84; and optionally
- (iii) at position R38, F42, E68, or a combination thereof.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution):

- (i) at position V69 and Q74, and/or at position K35; and
- (ii) at position H16, I92, or D84; and
- 25 (iii) at position R38, F42, E68, or a combination thereof.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution):

- (i) at position V69 and Q74, and/or at position K35; and
- (ii) at position H16, I92, or D84; or
- (iii) at position R38, F42, E68, or a combination thereof.
- 30 In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution):
- (i) at position V69 and Q74; and/or at position K35; and
- (ii) at position H16, I92, D84, or a combination thereof, and
- (iii) at position R38, F42, E68, or a combination thereof.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and H16, optionally wherein the amino acid substitution is V69A, Q74P, and H16N or H16L, respectively, optionally wherein the amino acid substitutions are V69A, Q74P, and

H16L. In an embodiment, the IL-2 agent comprises the amino acid substitutions V69A, Q74P, and H16L.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and I92, optionally wherein the amino acid substitution is V69A, Q74P, and I92S, respectively. In an embodiment, the IL-2 agent comprises the amino acid substitutions V69A, Q74P, and I92S.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and D84, optionally wherein the amino acid substitution is V69A, Q74P, and D84V, respectively. In an embodiment, the IL-2 agent comprises the amino acid substitutions V69A, Q74P, and D84V.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and R38, optionally wherein the amino acid substitution is V69A, Q74P, and R38Q, respectively.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and F42, optionally wherein the amino acid substitution is V69A, Q74P, and F42Q, respectively. In an embodiment, the IL-2 agent comprises the amino acid substitutions V69A, Q74P, and F42Q.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and R38, optionally wherein the amino acid substitution is V69A, Q74P, and R38N, respectively. In an embodiment, the IL-2 agent comprises the amino acid substitutions V69A, Q74P, and R38N.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and R38, optionally wherein the amino acid substitution is V69A, Q74P, and R38E, respectively. In an embodiment, the IL-2 agent comprises the amino acid substitutions V69A, Q74P, and R38E.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, K35, and H16, optionally wherein the amino acid substitution is V69A, Q74P, K35E, and H16N or H16L, respectively. In an embodiment, the IL-2 agent comprises the amino acid substitutions V69A, Q74P, K35E, and H16N or H16L. In an embodiment, the IL-2 agent comprises the amino acid substitutions V69A, Q74P, K35E, and H16N. In an embodiment, the IL-2 agent comprises the amino acid substitution is V69A, Q74P, K35E, and H16L.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, K35, H16, and R38, optionally wherein the amino acid substitution is V69A, Q74P, K35E, H16N, and R38N, respectively. In an embodiment, the IL-2 agent comprises the amino acid substitutions V69A, Q74P, K35E, H16N, and R38N.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, H16, and R38, optionally wherein the amino acid substitution is V69A, Q74P,

H16N or H16L, and R38N or R38Q, respectively, optionally wherein the amino acid substitutions are V69A, Q74P, H16N or H16L, and R38Q. In an embodiment, the IL-2 agent comprises the amino acid substitutions V69A, Q74P, H16L, and R38Q.

5 In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position I28, E68, S87, N88, Q126, or a combination thereof. In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position I28, optionally wherein the amino acid substitution is I28T or I28F. In an embodiment, the IL-2 agent comprises the amino acid substitution I28T. In an embodiment, the IL-2 agent comprises the amino acid substitution I28F.

10 In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position E68, optionally wherein the amino acid substitution is E68Q or E68N. In an embodiment, the IL-2 agent comprises the amino acid substitution E68Q. In an embodiment, the IL-2 agent comprises the amino acid substitution E68N.

15 In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position S87, optionally wherein the amino acid substitution is S87R. In an embodiment, the IL-2 agent comprises the amino acid substitution S87R.

20 In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position N88, optionally wherein the amino acid substitution is N88R, N88S, N88L, or N88D. In an embodiment, the IL-2 agent comprises the amino acid substitution N88R. In an embodiment, the IL-2 agent comprises the amino acid substitution N88S. In an embodiment, the IL-2 agent comprises the amino acid substitution N88L. In an embodiment, the IL-2 agent comprises the amino acid substitution N88D.

25 In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position Q126, optionally wherein the amino acid substitution is Q126T, Q126K, or Q126R. In an embodiment, the IL-2 agent comprises the amino acid substitution Q126T. In an embodiment, the IL-2 agent comprises the amino acid substitution Q126K. In an embodiment, the IL-2 agent comprises the amino acid substitution Q126R.

30 In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position C125, optionally wherein the amino acid substitution is C125S. In an embodiment, the IL-2 agent comprises the amino acid substitution C125S.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position T3, optionally wherein the amino acid substitution is T3A. In an embodiment, the IL-2 agent comprises the amino acid substitution T3A.

35 In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and C125, optionally wherein the amino acid substitution is V69A, Q74P, and C125S, respectively. In an embodiment, the IL-2 agent comprises the amino acid substitutions V69A, Q74P, and C125S.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position T3, H16, I92, or a combination thereof, optionally wherein the amino acid substitution is T3A, H16N, and I92S, respectively.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position H16, V69, Q74, and C125, optionally wherein the amino acid substitution is H16N, V69A, Q74P, and C125S, respectively. In an embodiment, the IL-2 agent comprises the amino acid substitutions H16N, V69A, Q74P, and C125S.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position H16, V69, Q74, and C125, optionally wherein the amino acid substitution is H16L, V69A, Q74P, and C125S, respectively. In an embodiment, the IL-2 agent comprises the amino acid substitutions H16L, V69A, Q74P, and C125S. Various technical effects are associated with an IL-2 agent comprising the aforesaid combination of amino acid alterations. Without wishing to be bound by theory, it is believed that in an embodiment, an IL-2 agent comprising the amino acid substitutions H16L, V69A, Q74P, and C125S can have at least one or more of the following advantageous properties: (i) has reduced binding affinity for CD122 and/or CD132, which increases the potency and selectivity of the IL-2 agent for regulatory T cells (Treg) compared to other T cell types; (ii) is significantly stable, *e.g.*, due to the presence of stabilizing V69A and Q74P mutations; (iii) has reduced or decreased (or has no more than a minimal effect on) binding capacity and/or binding affinity for CD25, which improves the lifetime of the IL-2 agent; (iv) does not substantially promote expansion, activation, survival, and/or proliferation of T effector cells and/or natural killer (NK) cells *in vitro* and/or *in vivo*; and/or (v) reduced incorrect disulfide pairing and improved stability, *e.g.*, due to the presence of the C125S mutation. In an embodiment, an IL-2 agent comprising the H16L mutation has reduced binding affinity for CD122 and/or CD132 and/or increased potency and selectivity for Treg over other T cell types, compared to an IL-2 agent comprising other H16 mutations. These properties make an IL-2 agent comprising the amino acid substitutions H16L, V69A, Q74P, and C125S particularly suitable for treating disorders and conditions arising from abnormal immune responses, such as autoimmune diseases.

Thus, in an embodiment, an IL-2 agent comprising the amino acid substitutions H16L, V69A, Q74P, and C125S, has *inter alia* one or more (*e.g.*, 2, 3, 4, 5, 6, 7, or all) of the following properties relative to a wild-type IL-2 or a reference IL-2 variant that does not comprise the amino acid substitutions: (i) enhanced or increased stability *in vitro* or *in vivo*; (ii) reduced or decreased binding capacity and/or binding affinity for human CD122 *in vitro* and/or *in vivo*; (iii) reduced or decreased binding capacity and/or binding affinity for human CD132 *in vitro* and/or *in vivo*; (iv) reduced or decreased affinity of the IL-2 variant for the heterodimeric IL-2 receptor composed of human CD122 and human CD132 (*i.e.* human CD122/CD132 heterodimer) *in vitro* and/or *in vivo*; (v) reduced or decreased (*e.g.*, moderately reduced or decreased) binding capacity and/or binding affinity for human CD25 *in vitro* and/or *in vivo*; (vi) selective binding to regulatory T cells (*e.g.* Foxp3⁺ T cells); (vii)

selective activation of the IL-2 signaling pathway in T regulatory cells (Tregs) *in vitro* or *in vivo*; or (viii) enhanced or increased ability to induce or promote Treg expansion, activity, survival and/or proliferation.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position H16, V69, Q74, I92, and C125, optionally wherein the amino acid substitution is H16L, V69A, Q74P, I92S, and C125S, respectively. In an embodiment, the IL-2 agent comprises the amino acid substitutions H16L, V69A, Q74P, I92S, and C125S.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position T3, V69, Q74, and C125, optionally wherein the amino acid substitution is T3A, V69A, Q74P, and C125S, respectively. In an embodiment, the IL-2 agent comprises the amino acid substitutions T3A, V69A, Q74P, and C125S.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position T3, H16, V69, Q74, and C125, optionally wherein the amino acid substitution is T3A, H16N or H16L, V69A, Q74P, and C125S, respectively. In an embodiment, the IL-2 agent comprises the amino acid substitutions T3A, H16N, V69A, Q74P, and C125S. In an embodiment, the IL-2 agent comprises the amino acid substitutions T3A, H16L, V69A, Q74P, and C125S.

In an embodiment, the IL-2 agent comprises an amino acid alteration (*e.g.*, substitution) at position T3, V69, Q74, I92, and C125, optionally wherein the amino acid substitution is T3A, V69A, Q74P, I92S, and C125S, respectively. In an embodiment, the IL-2 agent comprises the amino acid substitutions T3A, V69A, Q74P, I92S, and C125S. In an embodiment, the IL-2 agent comprises the amino acid substitutions T3A, V69A, Q74P, I92S, and C125S.

In an embodiment, the IL-2 agent comprises a human IL-2 variant comprising an amino acid sequence chosen from: SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 1000, SEQ ID NO: 1001, SEQ ID NO: 1002, or a functional fragment thereof, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the amino acid alteration(s) (*e.g.*, substitution(s)) provides the IL-2 agent with at least one or more (*e.g.*, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, or all) of the following properties relative to a reference IL-2 agent that does not comprise the amino acid alteration(s) (*e.g.*, substitution(s)):

- (i) enhanced or increased expression of the IL-2 agent;
- (ii) inhibited or decreased aggregation of the IL-2 agent;

- (iii) enhanced or increased stability of the IL-2 agent;
- (iv) enhanced or increased half-life of the IL-2 agent;
- (v) inhibited or decreased turnover and/or clearance of the IL-2 agent;
- (vi) inhibited or decreased (*e.g.*, moderately inhibited or decreased) or substantially
- 5 unchanged binding of the IL-2 agent to human CD25;
- (vii) inhibited or decreased affinity of the IL-2 agent for human CD122;
- (viii) inhibited or decreased affinity of the IL-2 agent for human CD132; or
- (ix) inhibited or decreased affinity of the IL-2 agent for the dimeric IL-2 receptor
- composed of human CD122 and human CD132;
- 10 (x) selective binding to regulatory T cells (*e.g.*, Foxp3+ T cells);
- (xi) selective activation of the IL-2 signaling pathway in Tregs; or
- (xii) enhanced or increased, or reduced or decreased, ability to induce or promote Treg
- expansion, activity, survival and/or proliferation.

- In an embodiment, the IL-2 agent comprises a human IL-2 variant comprising one or more
- 15 amino acid alteration(s) (*e.g.*, substitution(s)) chosen from H16D, H16N, H16L, I28T, K35E, R38Q, R38N, R38E, F42K, F42Q, V69A, Q74P, D84V, S87R, N88L, N88S, I92S, C125S; a polypeptide linker described herein; and a non-IL-2 moiety described herein; wherein the amino acid alteration(s) (*e.g.*, substitution(s)) provide(s) the IL-2 agent with at least one or more of the following properties relative to a reference IL-2 agent that does not comprise the amino acid alteration(s) (*e.g.*,
 - 20 substitution(s)):

- (i) enhanced or increased expression of the IL-2 agent;
- (ii) inhibited or decreased aggregation of the IL-2 agent;
- (iii) enhanced or increased stability of the IL-2 agent;
- (iv) enhanced or increased half-life of the IL-2 agent;
- 25 (v) inhibited or decreased turnover and/or clearance of the IL-2 agent;
- (vi) inhibited or decreased (*e.g.*, moderately inhibited or decreased) or substantially
- unchanged binding of the IL-2 agent to human CD25;
- (vii) inhibited or decreased affinity of the IL-2 agent for human CD122;
- (viii) inhibited or decreased affinity of the IL-2 agent for human CD132;
- 30 (ix) inhibited or decreased affinity of the IL-2 agent for the dimeric IL-2 receptor
- composed of human CD122 and human CD132;
- (x) selective binding to regulatory T cells (*e.g.*, Foxp3+ T cells);
- (xi) selective activation of the IL-2 signaling pathway in Tregs; and/or
- (xii) enhanced or increased, or reduced or decreased, ability to induce or promote Treg
- 35 expansion, activity, survival, and/or proliferation.

In an embodiment, the human IL-2 variant comprises the amino acid alteration(s) (*e.g.*, substitution(s)):

- | | | |
|----|----------|--|
| | (i) | C125S; |
| | (ii) | V69A, Q74P, and C125S; |
| | (iii) | H16D, V69A, Q74P, and C125S; |
| | (iv) | H16N, V69A, Q74P, and C125S; |
| 5 | (v) | H16L, V69A, Q74P, and C125S; |
| | (vi) | I28T, V69A, Q74P, and C125S; |
| | (vii) | V69A, Q74P, D84V, and C125S; |
| | (viii) | V69A, Q74P, S87R, and C125S; |
| | (ix) | V69A, Q74P, N88L, and C125S; |
| 10 | (x) | V69A, Q74P, N88S, and C125S; |
| | (xi) | V69A, Q74P, I92S, and C125S; |
| | (xii) | K35E, V69A, Q74P, and C125S; |
| | (xiii) | K35E, H16N, V69A, Q74P, and C125S; |
| | (xiv) | K35E, H16L, V69A, Q74P, and C125S; |
| 15 | (xv) | K35E, D84V, V69A, Q74P, and C125S; |
| | (xvi) | K35E, I92S, V69A, Q74P, and C125S; |
| | (xvii) | R38Q, V69A, Q74P, and C125S; |
| | (xviii) | R38Q, H16N, V69A, Q74P, and C125S; |
| | (xix) | R38Q, H16L, V69A, Q74P, and C125S; |
| 20 | (xx) | R38Q, D84V, V69A, Q74P, and C125S; |
| | (xxi) | R38Q, I92S, Q74P, and C125S; |
| | (xxii) | R38N, V69A, Q74P, and C125S; |
| | (xxiii) | R38N, H16N, V69A, Q74P, and C125S; |
| | (xxiv) | R38N, H16L, V69A, Q74P, and C125S; |
| 25 | (xxv) | R38N, D84V, V69A, Q74P, and C125S; |
| | (xxvi) | R38N, I92S, Q74P, and C125S; |
| | (xxvii) | R38E, V69A, Q74P, and C125S; |
| | (xxviii) | F42K, V69A, Q74P, and C125S; |
| | (xxix) | F42Q, V69A, Q74P, and C125S; |
| 30 | (xxx) | F42A, Y45A, L72G, N88D, V69A, Q74P, and C125S; |
| | (xxxi) | R38N, S87R, V69A, Q74P, and C125S; |
| | (xxxii) | R38E, H16N, V69A, Q74P, and C125S; |
| | (xxxiii) | R38E, D84V, V69A, Q74P, and C125S; |
| | (xxxiv) | R38E, S87R, V69A, Q74P, and C125S; |
| 35 | (xxxv) | R38E, I92S, V69A, Q74P, and C125S; |
| | (xxxvi) | F42Q, H16N, V69A, Q74P, and C125S; |
| | (xxxvii) | F42Q, I92S, V69A, Q74P, and C125S; or |

(xxxviii) K35E, R38N, H16N, V69A, Q74P, and C125S.

(xxxix) T3A, H16N, V69A, Q74P, and C125S;

(xl) T3A, H16L, V69A, Q74P, and C125S; or

(xli) T3A, V69A, Q74P, I92S, and C125S.

- In an embodiment, the IL-2 agent comprises a human IL-2 variant comprising an amino acid sequence chosen from SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 1000, SEQ ID NO: 1001, or SEQ ID NO: 1002, or a functional fragment thereof, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto; a polypeptide linker described herein; and a non-IL-2 moiety described herein; wherein the IL-2 agent exhibits at least one or more of the following properties relative to a reference IL-2 agent that does not comprise the human IL-2 polypeptide variant:
- (i) enhanced or increased expression of the IL-2 agent;
 - (ii) inhibited or decreased aggregation of the IL-2 agent;
 - (iii) enhanced or increased stability of the IL-2 agent;
 - (iv) enhanced or increased half-life of the IL-2 agent;
 - (v) inhibited or decreased turnover and/or clearance of the IL-2 agent;
 - (vi) inhibited or decreased (*e.g.*, moderately inhibited or decreased) or substantially unchanged binding of the IL-2 agent to human CD25;
 - (vii) inhibited or decreased affinity of the IL-2 agent for human CD122;
 - (viii) inhibited or decreased affinity of the IL-2 agent for human CD132;
 - (ix) inhibited or decreased affinity of the IL-2 agent for dimeric IL-2 receptor composed of human CD122 and human CD132;
 - (x) selective binding to regulatory T cells (*e.g.*, Foxp3⁺ T cells);
 - (xi) selective activation of the IL-2 signaling pathway in Tregs; and/or
 - (xii) enhanced or increased, or reduced or decreased, ability to induce or promote Treg expansion, activity and/or proliferation.

Various technical effects are associated with an IL-2 agent comprising the amino acid sequence of SEQ ID NO: 5. Without wishing to be bound by theory, it is believed that in an embodiment, an IL-2 agent comprising the amino acid sequence of SEQ ID NO: 5 can have at least one or more of the following advantageous properties: (i) has reduced binding affinity for CD122

and/or CD132, which increases the potency and selectivity of the IL-2 agent for regulatory T cells (Treg) compared to other T cell types; (ii) is significantly stable, *e.g.*, due to the presence of stabilizing V69A and Q74P mutations; (iii) has reduced or decreased (or has no more than a minimal effect on) binding capacity and/or binding affinity for CD25, which improves the lifetime of the IL-2 agent; (iv) does not substantially promote expansion, activation, survival, and/or proliferation of T effector cells and/or natural killer (NK) cells *in vitro* and/or *in vivo*; and/or (v) has reduced incorrect disulfide pairing and improved stability, *e.g.*, due to the presence of the C125S mutation. In an embodiment, an IL-2 agent comprising the H16L mutation has reduced binding affinity for CD122 and/or CD132 and/or increased potency and selectivity for Treg over other T cell types, compared to an IL-2 agent comprising other H16 mutations. These properties make an IL-2 agent comprising the amino acid sequence of SEQ ID NO: 5 particularly suitable for treating disorders and conditions arising from abnormal immune responses, such as autoimmune diseases.

Thus, in an embodiment, an IL-2 agent comprising the amino acid sequence of SEQ ID NO: 5, has *inter alia* one or more (*e.g.*, 2, 3, 4, 5, 6, 7, or all) of the following properties relative to a wild-type IL-2 or a reference IL-2 variant that does not comprise the amino acid substitutions: (i) enhanced or increased stability *in vitro* or *in vivo*; (ii) reduced or decreased binding capacity and/or binding affinity for human CD122 *in vitro* and/or *in vivo*; (iii) reduced or decreased binding capacity and/or binding affinity for human CD132 *in vitro* and/or *in vivo*; (iv) reduced or decreased affinity of the IL-2 variant for the heterodimeric IL-2 receptor composed of human CD122 and human CD132 (*i.e.* human CD122/CD132 heterodimer) *in vitro* and/or *in vivo*; (v) reduced or decreased (*e.g.*, moderately reduced or decreased) binding capacity and/or binding affinity for human CD25 *in vitro* and/or *in vivo*; (vi) selective binding to regulatory T cells (*e.g.* Foxp3⁺ T cells); (vii) selective activation of the IL-2 signaling pathway in T regulatory cells (Tregs) *in vitro* or *in vivo*; or (viii) enhanced or increased ability to induce or promote Treg expansion, activity, survival and/or proliferation.

In an embodiment, the reference IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1031, SEQ ID NO: 1, or SEQ ID NO: 2, or a functional fragment thereof. In an embodiment, the reference IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1031. In an embodiment, the reference IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1. In an embodiment, the reference IL-2 agent comprises the amino acid sequence of SEQ ID NO: 2.

In an embodiment, the IL-2 agent comprises a human IL-2 variant described herein fused to a non-IL-2 moiety described herein by a linker, wherein the linker is a polypeptide linker, optionally wherein the polypeptide linker is a flexible linker, a rigid linker, or a cleavable linker. In an embodiment, the polypeptide linker is a Gly-Ser linker (*e.g.*, a (G4S)_n linker, wherein n = 1, 2, 3, 4, 5, 6 or more (SEQ ID NO: 1020)), a proline-rich extended linker (*e.g.*, V1 GPc, V2, GPGc, V3 GcGcP, cellulase linker 4, cellulase linker 4), a rigid linker (*e.g.*, A(EAAAK)_nA, wherein n = 2, 3, 4, 5, or more (SEQ ID NO: 1021); REPR_12), a non-GS linker (*e.g.*, (GGGSA)_n, wherein n = 1, 2, 3, 4, 5, or more (SEQ ID NO: 1022)), or an immunoglobulin hinge region or portion thereof. In an embodiment,

the polypeptide linker is a Gly-Ser linker comprising (G4S)1 (SEQ ID NO: 1023), (G4S)2 (SEQ ID NO: 1024), (G4S)3 (SEQ ID NO: 1025), (G4S)4 (SEQ ID NO: 48), (G4S)5 (SEQ ID NO: 1026), or (G4S)6 (SEQ ID NO: 1027). In an embodiment, the polypeptide linker is a Gly-Ser linker comprising (G4S)4 (SEQ ID NO: 48). In an embodiment, the polypeptide linker comprises an amino acid
5 sequence chosen from SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, SEQ ID NO: 52, SEQ ID NO: 53, SEQ ID NO: 54, or SEQ ID NO: 55. In an embodiment, the polypeptide linker comprises the amino acid sequence of SEQ ID NO: 48.

In an embodiment, the non-IL-2 moiety is an immunoglobulin Fc region, or a fragment or portion thereof (*e.g.*, a functional fragment). In an embodiment, the immunoglobulin Fc region
10 comprises an IgG Fc region, an IgD Fc region, an IgA Fc region, an IgM Fc region, or an IgE Fc region, or fragment or portion thereof. In an embodiment, the IgG Fc region comprises a wild type human IgG1 Fc region (*e.g.*, IgG1 m3 allotype), a wild type IgG2 Fc region, or a wild type human IgG4 Fc region, or a fragment or portion thereof.

In an embodiment, the IgG Fc region comprises a mutant IgG1 or mutant IgG4 Fc region, or a
15 fragment or portion thereof. In an embodiment, the IgG Fc region comprises one or more (*e.g.*, two, three, four, or five) mutations, *e.g.*, one or more (*e.g.*, two, three, four, or five) mutations described herein.

In an embodiment, the IgG Fc region comprises a mutant IgG4 Fc region, or a fragment or portion thereof, wherein the mutant IgG4 Fc region is human.

In an embodiment, the mutant IgG4 Fc region, or fragment or portion thereof, comprises an amino acid alteration (*e.g.*, substitution) at Ser228, numbering according to EU numbering, optionally wherein the amino acid alteration (*e.g.*, substitution) at Ser228 is S228P. In an embodiment, the mutant IgG4 Fc region comprises the amino acid substitution S228P.

In an embodiment, the mutant IgG4 Fc region, or fragment or portion thereof, comprises an amino acid alteration (*e.g.*, substitution) at Arg409, numbering according to EU numbering, optionally wherein the amino acid alteration (*e.g.*, substitution) at Arg409 is R409K. In an embodiment, the mutant IgG4 Fc region comprises the amino acid substitution R409K.

In an embodiment, the mutant IgG4 Fc region, or a fragment or portion thereof, comprises amino acid alterations (*e.g.*, substitutions) at Thr307, Gln311, and Ala378, numbering according to
30 EU numbering, optionally wherein the amino acid alterations (*e.g.*, substitutions) are T307Q, Q311V, and A378V, respectively. In an embodiment, the mutant IgG4 Fc region comprises the amino acid substitutions T307Q, Q311V, and A378V.

In an embodiment, the mutant IgG4 Fc region comprises an amino acid sequence chosen from SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, or SEQ ID NO: 47, or an amino acid sequence
35 with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the IgG Fc region comprises a mutant IgG1 Fc region, or a fragment or portion thereof, wherein the mutant IgG1 Fc region is human. In an embodiment, the mutant IgG1 Fc region (*e.g.*, comprising an N297G substitution) has an IgG1 m3 allotype.

In an embodiment, the mutant IgG1 Fc region, or a fragment or portion thereof, comprises an amino acid alteration (*e.g.*, substitution) at Asn297, numbering according to EU numbering, optionally wherein the amino acid alteration (*e.g.*, substitution) at Asn297 is N297G. In an embodiment, the mutant IgG1 Fc region comprises the amino acid substitution N297G.

In an embodiment, the mutant IgG1 Fc region, or a fragment or portion thereof, comprises amino acid alterations (*e.g.*, substitutions) at Leu234, Leu235, and Pro329, numbering according to EU numbering, optionally wherein the amino acid alterations (*e.g.*, substitutions) are L234A, L235A, and P329G, respectively. In an embodiment, the mutant IgG1 Fc region comprises the amino acid substitutions L234A, L235A, and P329G.

In an embodiment, the mutant IgG1 Fc region, or a fragment or portion thereof, comprises amino acid alterations (*e.g.*, substitutions) at Thr307, Gln311, and Ala378, numbering according to EU numbering, optionally wherein the amino acid alterations (*e.g.*, substitutions) are T307Q, Q311V, and A378V, respectively. In an embodiment, the mutant IgG1 Fc region comprises the amino acid substitutions T307Q, Q311V, and A378V.

In an embodiment, the mutant IgG1 Fc region comprises an amino acid sequence chosen from SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, or SEQ ID NO: 1003, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the mutant IgG1 Fc region comprises an amino acid sequence of SEQ ID NO: 1003, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the mutant IgG1 Fc region comprises an amino acid sequence of SEQ ID NO: 1003.

In an embodiment, the non-IL-2 moiety inhibits or decreases the ability of the IL-2 agent to elicit Fc-receptor-mediated immune effector functions.

In an embodiment, the IL-2 agent comprises an IL-2 variant comprising an amino acid sequence chosen from SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, or SEQ ID NO: 38, SEQ ID NO: 1000, SEQ ID NO: 1001, or SEQ

ID NO: 1002, or a functional fragment thereof; wherein the IL-2 agent comprises a Gly-Ser linker, optionally wherein the Gly-Ser linker comprises (G₄S)₄ (SEQ ID NO: 48), and wherein the IL-2 variant is fused by the Gly-Ser linker to an IgG Fc region comprising an amino acid sequence chosen from SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, or SEQ ID NO: 1003.

In an embodiment, the IL-2 agent comprises an amino acid sequence chosen from SEQ ID NO: 56, SEQ ID NO: 57, SEQ ID NO: 58, SEQ ID NO: 59, SEQ ID NO: 60, SEQ ID NO: 61, SEQ ID NO: 62, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 66, SEQ ID NO: 67, SEQ ID NO: 68, SEQ ID NO: 69, SEQ ID NO: 70, SEQ ID NO: 71, SEQ ID NO: 72, SEQ ID NO: 73, SEQ ID NO: 74, SEQ ID NO: 75, SEQ ID NO: 76, SEQ ID NO: 77, SEQ ID NO: 78, SEQ ID NO: 79, SEQ ID NO: 80, SEQ ID NO: 81, SEQ ID NO: 82, SEQ ID NO: 83, SEQ ID NO: 84, SEQ ID NO: 85, SEQ ID NO: 86, SEQ ID NO: 87, SEQ ID NO: 88, SEQ ID NO: 89, SEQ ID NO: 90, SEQ ID NO: 91, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 1004, SEQ ID NO: 1005, SEQ ID NO: 1006, SEQ ID NO: 1007, SEQ ID NO: 1008, or SEQ ID NO: 1009, or a functional fragment thereof.

In an embodiment, the IL-2 agent comprises an amino acid sequence chosen from SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131, or a functional fragment thereof.

In an embodiment, the IL-2 agent comprises an amino acid sequence chosen from SEQ ID NO: 132, SEQ ID NO: 133, SEQ ID NO: 134, SEQ ID NO: 135, SEQ ID NO: 136, SEQ ID NO: 137, SEQ ID NO: 138, SEQ ID NO: 139, SEQ ID NO: 140, SEQ ID NO: 141, SEQ ID NO: 142, SEQ ID NO: 143, SEQ ID NO: 144, SEQ ID NO: 145, SEQ ID NO: 146, SEQ ID NO: 147, SEQ ID NO: 148, SEQ ID NO: 149, SEQ ID NO: 150, SEQ ID NO: 151, SEQ ID NO: 152, SEQ ID NO: 153, SEQ ID NO: 154, SEQ ID NO: 155, SEQ ID NO: 156, SEQ ID NO: 157, SEQ ID NO: 158, SEQ ID NO: 159, SEQ ID NO: 160, SEQ ID NO: 161, SEQ ID NO: 162, SEQ ID NO: 163, SEQ ID NO: 164, SEQ ID NO: 165, SEQ ID NO: 166, SEQ ID NO: 167, SEQ ID NO: 168, or SEQ ID NO: 169, or a functional fragment thereof.

In an embodiment, the IL-2 agent comprises an amino acid sequence chosen from SEQ ID NO: 170, SEQ ID NO: 171, SEQ ID NO: 172, SEQ ID NO: 173, SEQ ID NO: 174, SEQ ID NO: 175, SEQ ID NO: 176, SEQ ID NO: 177, SEQ ID NO: 178, SEQ ID NO: 179, SEQ ID NO: 180, SEQ ID NO: 181, SEQ ID NO: 182, SEQ ID NO: 183, SEQ ID NO: 184, SEQ ID NO: 185, SEQ ID NO: 186,

SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, or SEQ ID NO: 207, or a functional
5 fragment thereof.

In an embodiment, the IL-2 agent comprises an amino acid sequence chosen from SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224,
10 SEQ ID NO: 225, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 228, SEQ ID NO: 229, SEQ ID NO: 230, SEQ ID NO: 231, SEQ ID NO: 232, SEQ ID NO: 233, SEQ ID NO: 234, SEQ ID NO: 235, SEQ ID NO: 236, SEQ ID NO: 237, SEQ ID NO: 238, SEQ ID NO: 239, SEQ ID NO: 240, SEQ ID NO: 241, SEQ ID NO: 242, SEQ ID NO: 243, SEQ ID NO: 244, or SEQ ID NO: 245, or a functional fragment thereof.

In an embodiment, the IL-2 agent comprises an amino acid sequence chosen from SEQ ID NO: 246, SEQ ID NO: 247, SEQ ID NO: 248, SEQ ID NO: 249, SEQ ID NO: 250, SEQ ID NO: 251, SEQ ID NO: 252, SEQ ID NO: 253, SEQ ID NO: 254, SEQ ID NO: 255, SEQ ID NO: 256, SEQ ID NO: 257, SEQ ID NO: 258, SEQ ID NO: 259, SEQ ID NO: 260, SEQ ID NO: 261, SEQ ID NO: 262, SEQ ID NO: 263, SEQ ID NO: 264, SEQ ID NO: 265, SEQ ID NO: 266, SEQ ID NO: 267, SEQ ID
20 NO: 268, SEQ ID NO: 269, SEQ ID NO: 270, SEQ ID NO: 271, SEQ ID NO: 272, SEQ ID NO: 273, SEQ ID NO: 274, SEQ ID NO: 275, SEQ ID NO: 276, SEQ ID NO: 277, SEQ ID NO: 278, SEQ ID NO: 279, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, or SEQ ID NO: 283, or a functional fragment thereof.

In an embodiment, the IL-2 agent comprises an amino acid sequence chosen from SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311,
30 SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, or SEQ ID NO: 321, or a functional fragment thereof.

In an embodiment, the IL-2 agent comprises an amino acid sequence chosen from SEQ ID NO: 322, SEQ ID NO: 323, SEQ ID NO: 324, SEQ ID NO: 325, SEQ ID NO: 326, SEQ ID NO: 327, SEQ ID NO: 328, SEQ ID NO: 329, SEQ ID NO: 330, SEQ ID NO: 331, SEQ ID NO: 332, SEQ ID NO: 333, SEQ ID NO: 334, SEQ ID NO: 335, SEQ ID NO: 336, SEQ ID NO: 337, SEQ ID NO: 338, SEQ ID NO: 339, SEQ ID NO: 340, SEQ ID NO: 341, SEQ ID NO: 342, SEQ ID NO: 343, SEQ ID

NO: 344, SEQ ID NO: 345, SEQ ID NO: 346, SEQ ID NO: 347, SEQ ID NO: 348, SEQ ID NO: 349, SEQ ID NO: 350, SEQ ID NO: 351, SEQ ID NO: 352, SEQ ID NO: 353, SEQ ID NO: 354, SEQ ID NO: 355, SEQ ID NO: 356, SEQ ID NO: 357, SEQ ID NO: 358, or SEQ ID NO: 359, or a functional fragment thereof.

- 5 In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 59, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 97, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 135, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 173, or a functional fragment thereof. In
- 10 an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 211, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 249, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 287, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 325, or a functional fragment thereof.
- 15 In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 66, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 104, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 142, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 180, or a functional fragment thereof.
- 20 In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 218, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 256, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 294, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 332, or a functional fragment thereof.
- 25 In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 60, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 98, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 136, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 174, or a functional fragment thereof.
- 30 In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 212, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 250, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 288, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 326, or a functional fragment thereof. In
- 35 an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 69, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 107, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino

acid sequence of SEQ ID NO: 145, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 183, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 221, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 259, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 297, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 335, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1004, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1005, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1006, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1007, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1008, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1009, or a functional fragment thereof.

Various technical effects are associated with an IL-2 agent comprising the amino acid sequence of SEQ ID NO: 1008. Without wishing to be bound by theory, it is believed that in an embodiment, an IL-2 agent comprising the amino acid sequence of SEQ ID NO: 1008 can have at least one or more of the following advantageous properties: (i) has reduced binding affinity for CD122 and/or CD132, which increases the potency and selectivity of the IL-2 agent for regulatory T cells (Treg) compared to other T cell types; (ii) is significantly stable, *e.g.*, due to the presence of stabilizing V69A and Q74P mutations; (iii) has reduced or decreased (or has no more than a minimal effect on) binding capacity and/or binding affinity for CD25, which improves the lifetime of the IL-2 agent; (iv) does not substantially promote expansion, activation, survival, and/or proliferation of T effector cells and/or natural killer (NK) cells *in vitro* and/or *in vivo*; and/or (v) has reduced incorrect disulfide pairing and improved stability, *e.g.*, due to the presence of the C125S mutation. In an embodiment, an IL-2 agent comprising the H16L mutation has reduced binding affinity for CD122 and/or CD132 and/or increased potency and selectivity for Treg over other T cell types, compared to an IL-2 agent comprising other H16 mutations. These properties make an IL-2 variant an IL-2 agent comprising the amino acid sequence of SEQ ID NO: 1008 particularly suitable for treating disorders and conditions arising from abnormal immune responses, such as autoimmune diseases.

Thus, in an embodiment, an IL-2 agent comprising the amino acid sequence of SEQ ID NO: 1008, has *inter alia* one or more (*e.g.*, 2, 3, 4, 5, 6, 7, or all) of the following properties relative to a wild-type IL-2 or a reference IL-2 variant that does not comprise the amino acid substitutions: (i) enhanced or increased stability *in vitro* or *in vivo*; (ii) reduced or decreased binding capacity and/or binding affinity for human CD122 *in vitro* and/or *in vivo*; (iii) reduced or decreased binding capacity and/or binding affinity for human CD132 *in vitro* and/or *in vivo*; (iv) reduced or decreased affinity of

the IL-2 variant for the heterodimeric IL-2 receptor composed of human CD122 and human CD132 (*i.e.* human CD122/CD132 heterodimer) *in vitro* and/or *in vivo*; (v) reduced or decreased (*e.g.*, moderately reduced or decreased) binding capacity and/or binding affinity for human CD25 *in vitro* and/or *in vivo*; (vi) selective binding to regulatory T cells (*e.g.* Foxp3⁺ T cells); (vii) selective
 5 activation of the IL-2 signaling pathway in T regulatory cells (Tregs) *in vitro* or *in vivo*; or (viii) enhanced or increased ability to induce or promote Treg expansion, activity, survival and/or proliferation.

In an embodiment, the IL-2 agent forms a dimer (*e.g.*, a homodimer or heterodimer). In an embodiment, the IL-2 agent comprises an IL-2 fusion protein. In an embodiment, the IL-2 agent
 10 comprises an IL-2 agent/anti-IL-2 antibody complex. In an embodiment, the IL-2 agent comprises a conjugate.

In an embodiment, the IL-2 agent is formulated in a composition (*e.g.*, pharmaceutical composition) described herein. In an embodiment, the IL-2 agent is encoded by a nucleic acid described herein. In an embodiment, the IL-2 agent is encoded by a nucleic acid present in a vector
 15 (*e.g.*, expression vector) described herein. In an embodiment, the IL-2 agent is encoded by a nucleic acid present in a cell (*e.g.*, isolated cell). In an embodiment, the IL-2 agent is produced by a method described herein, *e.g.*, comprising culturing (*e.g.*, maintaining) a cell comprising a nucleic acid encoding an IL-2 agent described herein or a vector (*e.g.*, expression vector) comprising a nucleic acid encoding an IL-2 agent described herein under conditions permitting expression of the IL-2
 20 agent. In an embodiment, the IL-2 agent is isolated or purified. In an embodiment, the IL-2 agent is present in a kit described herein. In an embodiment, the IL-2 agent is present in a container described herein.

DETAILED DESCRIPTION

25 Disclosed herein are IL-2 agents (*e.g.*, IL-2 variants, IL-2 fusion proteins, IL-2 complexes, or IL-2 conjugates) that have one or more structural and/or functional properties described herein. Advantageously, several of the IL-2 agents described herein have one or more improved or desired properties, compared to an IL-2 agent comprising a wild-type IL-2. Without wishing to be bound by theory, it is believed that in an embodiment, the IL-2 agents described herein selectively enhance
 30 regulatory T cell (Treg) activity through the IL-2 pathway. Nucleic acid molecules encoding the IL-2 agents, expression vectors, host cells, compositions (*e.g.*, pharmaceutical compositions), kits, containers, and methods for making the IL-2 agents, are also provided. The IL-2 agents and pharmaceutical compositions disclosed herein can be used (alone or in combination with other agents or therapeutic modalities) to treat, prevent, and/or diagnose disorders and conditions, *e.g.*, disorders
 35 and conditions associated with T cell activity, *e.g.*, a disorder or condition described herein (*e.g.*, an autoimmune disease described herein).

Immune response is typically controlled by recognition of specific foreign or self-antigens, communication between innate and adaptive immune pathways, crosstalk between B cells and T cells, and other factors. Some autoimmune diseases can be characterized by broad recognition of self-antigens. These diseases can be treated by therapies that broadly enhance the processes that protect self-antigens from attack by the immune system. Tregs are a type of T cell that recognizes self-antigens. In response to antigen stimulation they release immuno-suppressive cytokines and directly inhibit other T cells through cell-cell contacts. Impaired Treg activity contributes to a wide range of autoimmune diseases (*e.g.*, too few cells, or cells that are less active). IL-2 is a cytokine that causes expansion and activation of many cell types, but Tregs are typically far more sensitive to IL-2 than are other cell types. Low dose IL-2 administration was shown to be associated with preferential, sustained Treg cell expansion *in vivo* and amelioration of the manifestations of chronic graft-vs-host disease (GVHD) in a substantial proportion of patients (Koreth *et al.*, *N Engl J Med.* 2011; 365(22): 2055-2066). In an embodiment, the IL-2 agents described herein provide a long-lived immunomodulator (*e.g.*, immunosuppressant) for a number of disorders (*e.g.*, autoimmune indications).

The present disclosure is based, at least in part, on the discovery that IL-2 agents comprising a human IL-2 polypeptide with specific combinations of amino acid substitutions described herein can have advantageous technical effects, *e.g.*, increasing the stability of the IL-2 agent and/or providing the selective activation of regulatory T cells. The IL-2 agents described herein typically requires CD25 for efficient signaling through IL-2 receptors, making it highly selective for Tregs. IL-2 signaling promotes Treg suppressor functions and drives proliferation. Without wishing to be bound by theory, it is believed that Tregs activated by the IL-2 agents described herein can dampen autoimmune activity through varied mechanisms.

In an embodiment, the IL-2 agents described herein were found to selectively bind to and activate regulatory T cells with a concomitant lack of effect on other immune cell types (*e.g.*, CD25^{high} T cells and NK cells). Without wishing to be bound by theory, it is believed that in an embodiment, the amino acid substitutions described herein both promote the ability of the IL-2 agent to maintain an active conformation and modulate the binding affinity of the IL-2 agent for the dimeric receptor comprising IL-2R β (CD122) and IL-2R γ (CD132), and the trimeric receptor comprising IL-2R α (CD25) along with CD122 and CD132. In an embodiment, the IL-2 agents described herein have an affinity that is optimal for selectively binding to and activating IL-2 signaling in regulatory T cells, resulting in selective regulatory T cell activation and expansion both *in vitro* and *in vivo*. Without wishing to be bound by theory, it is believed that in an embodiment, binding of IL-2 to IL-2 receptors is a major route of clearance of IL-2 *in vivo*. For example, the IL-2 agents described herein, having a reduced affinity for dimeric and trimeric IL-2 receptors showed an extended half-life, indicating that lowering the affinity for IL-2 receptors decreases the clearance of the IL-2 agent *in vivo*. The IL-2 agents described herein, such as those having amino acid substitutions that increase stability and a

reduce affinity for IL-2 receptors, can selectively activate regulatory T cells and exhibit an increased in half-life *in vivo*. The IL-2 agents described herein, such as those having mutations that prevent CD25 binding, can have improved half-life *in vivo*. In an embodiment, the IL-2 agent does not promote, or does not substantially promote, expansion, activation, survival, and/or proliferation of T effector cells and/or NK cells *in vitro* and/or *in vivo*. Without wishing to be bound by theory, it is believed that in an embodiment, the IL-2 agents described herein can have larger therapeutic window than low dose IL-2.

There are various technical effects associated with the presence of the particular sets of mutations described herein, for example, a set of mutations comprising an amino acid substitution at position H16, in combination with amino acid substitutions at positions V69, Q74, and C125 (*e.g.*, H16L, V69A, Q74P, and C125S). Without wishing to be bound by theory, it is believed that in an embodiment, an IL-2 agent (*e.g.*, IL-2 variant or IL-2 fusion protein) comprising H16L, V69A, Q74P, and C125S is significantly stable, *e.g.*, due to the presence of stabilizing V69A and Q74P mutations. For example, it was unexpectedly discovered that the V69A and Q74P substitutions do not substantially increase (or essentially reduce) the binding affinity of the IL-2 agent for CD25, but rather stabilize the IL-2 agent in an active conformation sufficient for binding to CD25. Without wishing to be bound by theory, it is also believed that in an embodiment, an IL-2 agent comprising the aforesaid mutations has reduced binding affinity for CD122 and/or CD132, which increases the potency and selectivity of the IL-2 agent for regulatory T cells (Treg) compared to other T cell types. Therefore, an IL-2 agent comprising these mutations is typically stable and selectively activates regulatory T cells (Treg). Without wishing to be bound by theory, it is further believed that in an embodiment, an IL-2 agent comprising the aforesaid mutations has reduced or decreased binding capacity and/or binding affinity for CD25, which improves the lifetime of the IL-2 agent. Without wishing to be bound by theory, it is also believed that in an embodiment, an IL-2 agent comprising these mutations does not substantially promote expansion, activation, survival, and/or proliferation of T effector cells and/or natural killer (NK) cells *in vitro* and/or *in vivo*. In an embodiment, an IL-2 agent comprising the H16L mutation has reduced binding affinity for CD122 and/or CD132 and/or increased potency and selectivity for Treg over other T cell types, compared to an IL-2 agent comprising other H16 mutations. These properties make an IL-2 agent comprising the aforesaid mutations particularly suitable for treating disorders and conditions arising from abnormal immune responses, such as autoimmune diseases.

Thus, in an embodiment, an IL-2 agent (*e.g.*, IL-2 variant or IL-2 fusion protein) comprising an amino acid substitution at position H16 in combination with amino acid substitutions at positions V69, Q74, and C125 (*e.g.*, H16L, V69A, Q74P, and C125S), has *inter alia* one or more (*e.g.*, 2, 3, 4, 5, 6, 7, or all) of the following properties relative to a wild-type IL-2 or a reference IL-2 agent that does not comprise the amino acid substitutions: (i) enhanced or increased stability *in vitro* or *in vivo*; (ii) reduced or decreased binding capacity and/or binding affinity for human CD122 *in vitro* and/or *in*

- vivo*; (iii) reduced or decreased binding capacity and/or binding affinity for human CD132 *in vitro* and/or *in vivo*; (iv) reduced or decreased affinity of the IL-2 agent for the heterodimeric IL-2 receptor composed of human CD122 and human CD132 (*i.e.* human CD122/CD132 heterodimer) *in vitro* and/or *in vivo*; (v) reduced or decreased (*e.g.*, moderately reduced or decreased) binding capacity and/or binding affinity for human CD25 *in vitro* and/or *in vivo*; (vi) selective binding to regulatory T cells (*e.g.* Foxp3⁺ T cells); (vii) selective activation of the IL-2 signaling pathway in T regulatory cells (Tregs) *in vitro* or *in vivo*; or (viii) enhanced or increased ability to induce or promote Treg expansion, activity, survival and/or proliferation.

10 Definitions

As used herein, the articles “a” and “an” refer to one or to more than one (*e.g.*, to at least one) of the grammatical object of the article.

The term “or” is used herein to mean, and is used interchangeably with, the term “and/or”, unless context clearly indicates otherwise.

- 15 “About” and “approximately” shall generally mean an acceptable degree of error for the quantity measured given the nature or precision of the measurements. Exemplary degrees of error are within 20 percent (%), typically, within 10%, and more typically, within 5% of a given value or range of values. When “about” or “approximately” is present before a series of numbers or a range, it is understood that “about” or “approximately” can modify each of the numbers in the series or range.
- 20 Similarly, when “at least,” “more than,” “no more than,” “less than,” “no less than,” or “within” is present before a series of numbers or a range, it is understood that “at least,” “more than,” “no more than,” “less than,” “no less than,” or “within” can modify each of the numbers in the series or range. As used herein, ranges include both the upper and lower limit.

- The compositions and methods disclosed herein encompass polypeptides and nucleic acids having the sequences specified, or sequences substantially identical or similar thereto, *e.g.*, sequences at least 85%, 90%, 95% identical or higher to the sequence specified.

- In the context of an amino acid sequence, the term “substantially identical” is used herein to refer to a first amino acid that contains a sufficient or minimum number of amino acid residues that are i) identical to, or ii) conservative substitutions of aligned amino acid residues in a second amino acid sequence such that the first and second amino acid sequences can have a common structural domain and/or common functional activity. For example, amino acid sequences that contain a common structural domain having at least about 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98% or 99% identity to a reference sequence, *e.g.*, a sequence provided herein.

- In the context of nucleotide sequence, the term “substantially identical” is used herein to refer to a first nucleic acid sequence that contains a sufficient or minimum number of nucleotides that are identical to aligned nucleotides in a second nucleic acid sequence such that the first and second nucleotide sequences encode a polypeptide having common functional activity, or encode a common

structural polypeptide domain or a common functional polypeptide activity. For example, nucleotide sequences having at least about 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98% or 99% identity to a reference sequence, *e.g.*, a sequence provided herein.

5 The term “functional variant” refers polypeptides that have a substantially identical amino acid sequence to the naturally-occurring sequence, or are encoded by a substantially identical nucleotide sequence, and are capable of having one or more activities of the naturally-occurring sequence.

Calculations of homology or sequence identity between sequences (the terms are used interchangeably herein) are performed as follows.

10 To determine the percent identity of two amino acid sequences, or of two nucleic acid sequences, the sequences are aligned for optimal comparison purposes (*e.g.*, gaps can be introduced in one or both of a first and a second amino acid or nucleic acid sequence for optimal alignment and non-homologous sequences can be disregarded for comparison purposes). In a typical embodiment, the length of a reference sequence aligned for comparison purposes is at least 30%, *e.g.*, at least 40%,
15 50%, 60%, *e.g.*, at least 70%, 80%, 90%, 100% of the length of the reference sequence. The amino acid residues or nucleotides at corresponding amino acid positions or nucleotide positions are then compared. When a position in the first sequence is occupied by the same amino acid residue or nucleotide as the corresponding position in the second sequence, then the molecules are identical at that position.

20 The percent identity between the two sequences is a function of the number of identical positions shared by the sequences, taking into account the number of gaps, and the length of each gap, which need to be introduced for optimal alignment of the two sequences.

The comparison of sequences and determination of percent identity between two sequences can be accomplished using a mathematical algorithm. In an embodiment, the percent identity
25 between two amino acid sequences is determined using the Needleman and Wunsch ((1970) *J. Mol. Biol.* 48:444-453) algorithm which has been incorporated into the GAP program in the GCG software package (available at www.gcg.com), using either a Blossum 62 matrix or a PAM250 matrix, and a gap weight of 16, 14, 12, 10, 8, 6, or 4 and a length weight of 1, 2, 3, 4, 5, or 6. In certain
30 embodiments, the percent identity between two nucleotide sequences is determined using the GAP program in the GCG software package (available at www.gcg.com), using a NWSgapdna.CMP matrix and a gap weight of 40, 50, 60, 70, or 80 and a length weight of 1, 2, 3, 4, 5, or 6. One suitable set of parameters (and the one that should be used unless otherwise specified) are a Blossum 62 scoring matrix with a gap penalty of 12, a gap extend penalty of 4, and a frameshift gap penalty of 5.

35 The percent identity between two amino acid or nucleotide sequences can be determined using the algorithm of E. Meyers and W. Miller ((1989) *CABIOS*, 4:11-17) which has been incorporated into the ALIGN program (version 2.0), using a PAM120 weight residue table, a gap length penalty of 12 and a gap penalty of 4.

The nucleic acid and protein sequences described herein can be used as a “query sequence” to perform a search against public databases to, for example, identify other family members or related sequences. Such searches can be performed using the NBLAST and XBLAST programs (version 2.0) of Altschul, *et al.* (1990) *J. Mol. Biol.* 215:403-10. BLAST nucleotide searches can be performed
5 with the NBLAST program, score = 100, wordlength = 12 to obtain nucleotide sequences homologous to a nucleic acid as described herein. BLAST protein searches can be performed with the XBLAST program, score = 50, wordlength = 3 to obtain amino acid sequences homologous to protein molecules described herein. To obtain gapped alignments for comparison purposes, Gapped BLAST can be utilized as described in Altschul *et al.*, (1997) *Nucleic Acids Res.* 25:3389-3402. When
10 utilizing BLAST and gapped BLAST programs, the default parameters of the respective programs (*e.g.*, XBLAST and NBLAST) can be used. See www.ncbi.nlm.nih.gov.

As used herein, the term “hybridizes under low stringency, medium stringency, high stringency, or very high stringency conditions” describes conditions for hybridization and washing. Guidance for performing hybridization reactions can be found in *Current Protocols in Molecular*
15 *Biology*, John Wiley & Sons, N.Y. (1989), 6.3.1-6.3.6, which is incorporated by reference. Aqueous and nonaqueous methods are described in that reference and either can be used. Specific hybridization conditions referred to herein are as follows: 1) low stringency hybridization conditions in 6X sodium chloride/sodium citrate (SSC) at about 45°C, followed by two washes in 0.2X SSC, 0.1% SDS at least at 50°C (the temperature of the washes can be increased to 55°C for low stringency
20 conditions); 2) medium stringency hybridization conditions in 6X SSC at about 45°C, followed by one or more washes in 0.2X SSC, 0.1% SDS at 60°C; 3) high stringency hybridization conditions in 6X SSC at about 45°C, followed by one or more washes in 0.2X SSC, 0.1% SDS at 65°C; and preferably 4) very high stringency hybridization conditions are 0.5M sodium phosphate, 7% SDS at 65°C, followed by one or more washes at 0.2X SSC, 1% SDS at 65°C. Very high stringency
25 conditions 4) are suitable conditions and the ones that should be used unless otherwise specified.

It is understood that the molecules described herein may have additional conservative or non-essential amino acid substitutions, which do not have a substantial effect on their functions.

The term “amino acid” is intended to embrace all molecules, whether natural or synthetic, which include both an amino functionality and an acid functionality and capable of being included in
30 a polymer of naturally-occurring amino acids. Exemplary amino acids include naturally-occurring amino acids; analogs, derivatives and congeners thereof; amino acid analogs having variant side chains; and all stereoisomers of any of any of the foregoing. As used herein the term “amino acid” includes both the D- or L- optical isomers and peptidomimetics.

A “conservative amino acid substitution” is one in which the amino acid residue is replaced
35 with an amino acid residue having a similar side chain. Families of amino acid residues having similar side chains have been defined in the art. These families include amino acids with basic side

chains (*e.g.*, lysine, arginine, histidine), acidic side chains (*e.g.*, aspartic acid, glutamic acid), uncharged polar side chains (*e.g.*, glycine, asparagine, glutamine, serine, threonine, tyrosine, cysteine), nonpolar side chains (*e.g.*, alanine, valine, leucine, isoleucine, proline, phenylalanine, methionine, tryptophan), beta-branched side chains (*e.g.*, threonine, valine, isoleucine) and aromatic
 5 side chains (*e.g.*, tyrosine, phenylalanine, tryptophan, histidine).

The terms “polypeptide,” “peptide” and “protein” (if single chain) are used interchangeably herein to refer to polymers of amino acids of any length. The polymer may be linear or branched, it may comprise modified amino acids, and it may be interrupted by non-amino acids. The terms also encompass an amino acid polymer that has been modified; for example, disulfide bond formation,
 10 glycosylation, lipidation, acetylation, phosphorylation, or any other manipulation, such as conjugation with a labeling component. The polypeptide can be isolated from natural sources, can be a produced by recombinant techniques from a eukaryotic or prokaryotic host, or can be a product of synthetic procedures.

As recognized by those skilled in the art, protein fragments, functional protein domains, and
 15 homologous proteins are also considered to be within the scope of this invention. For example, provided herein is any protein fragment of a reference protein (meaning a polypeptide sequence at least one amino acid residue shorter than a reference polypeptide sequence but otherwise identical) 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 80, 90, 100, or greater than 100 amino acids in length. In another example, any protein that includes a stretch of about 20, about 30, about 40, about 50, or
 20 about 100 amino acids which are about 40%, about 50%, about 60%, about 70%, about 80%, about 90%, about 95%, about 98%, or about 100% identical to any of the sequences described herein can be utilized in accordance with the invention. In an embodiment, a protein sequence to be utilized in accordance with the disclosure includes 2, 3, 4, 5, 6, 7, 8, 9, 10, or more mutations as shown in any of the sequences provided or referenced herein.

The terms “nucleic acid,” “nucleic acid sequence,” “nucleotide sequence,” or “polynucleotide sequence,” and “polynucleotide” are used interchangeably. They refer to a polymeric form of nucleotides of any length, either deoxyribonucleotides or ribonucleotides, or analogs thereof. The polynucleotide may be either single-stranded or double-stranded, and if single-stranded may be the coding strand or non-coding (antisense) strand. A polynucleotide may comprise modified
 30 nucleotides, such as methylated nucleotides and nucleotide analogs. The sequence of nucleotides may be interrupted by non-nucleotide components. A polynucleotide may be further modified after polymerization, such as by conjugation with a labeling component. The nucleic acid may be a recombinant polynucleotide, or a polynucleotide of genomic, cDNA, semisynthetic, or synthetic origin which either does not occur in nature or is linked to another polynucleotide in a non-natural
 35 arrangement.

The term “isolated,” as used herein, refers to material that is removed from its original or native environment (*e.g.*, the natural environment if it is naturally occurring). For example, a

naturally-occurring polynucleotide or polypeptide present in a living animal is not isolated, but the same polynucleotide or polypeptide, separated by human intervention from some or all of the co-existing materials in the natural system, is isolated. Such polynucleotides could be part of a vector and/or such polynucleotides or polypeptides could be part of a composition, and still be isolated in
 5 that such vector or composition is not part of the environment in which it is found in nature.

As used herein, the term “treat,” a disorder, *e.g.*, a myeloma, means that a subject (*e.g.*, a human) who has a disorder, *e.g.*, a myeloma, and/or experiences a symptom of a disorder, *e.g.*, a myeloma, will, in an embodiment, suffer less a severe symptom and/or recover faster when an antibody molecule is administered than if the antibody molecule were never administered. In an
 10 embodiment, when a myeloma is treated, a bone marrow biopsy will show fewer clonal plasma cells, after effective treatment for myeloma. For example, a diagnostic assay will detect fewer clonal plasma cells in a biological sample of a subject after administration of an antibody molecule described herein for the effective treatment of a myeloma. Other assays, urine tests, or blood tests, can also be used to monitor treatment in a patient, or to detect the presence, *e.g.*, decreased presence (or absence),
 15 of a symptom of a myeloma, after treatment of a myeloma in the subject. In an embodiment, when a myeloma is treated, the level of $\beta 2$ microglobulin ($\beta 2M$) in serum or urine will be decreased, after effective treatment for myeloma. Treatment can, *e.g.*, partially or completely, alleviate, ameliorate, relieve, inhibit, or reduce the severity of, and/or reduce incidence, and optionally, delay onset of, one or more manifestations of the effects or symptoms, features, and/or causes of a disorder, *e.g.*, a
 20 myeloma. In an embodiment, treatment is of a subject who does not exhibit certain signs of a disorder, *e.g.*, a myeloma, and/or of a subject who exhibits only early signs of a disorder, *e.g.*, nephropathy. In an embodiment, treatment is of a subject who exhibits one or more established signs of a disorder, *e.g.*, a myeloma. In an embodiment, treatment is of a subject diagnosed as suffering from a disorder, *e.g.*, a myeloma.

As used herein, the term “prevent,” a disorder, *e.g.*, a myeloma, means that a subject (*e.g.*, a human) is less likely to have the disorder, *e.g.*, a myeloma, if the subject receives the antibody molecule.

Various aspects of the compositions and methods herein are described in further detail below. Additional definitions are set out throughout the specification.

30

IL-2 Agents

The present disclosure provides IL-2 agents, including, but not limited to, IL-2 variants, IL-2 fusion proteins, IL-2 complexes, and IL-2 conjugates. For example, the IL-2 agents described herein can have one or more structural and/or functional properties described herein. In an embodiment, the
 35 IL-2 agent comprises an IL-2 variant comprising one or more amino acid alterations (*e.g.*, substitutions) described herein. In an embodiment, the IL-2 agent comprises an IL-2 variant comprising one or more amino acid alterations (*e.g.*, substitutions) described in **Table 9**. In an

embodiment, the IL-2 agent comprises an IL-2 variant comprising an amino acid sequence described in **Table 9**, or a portion thereof. In an embodiment, the IL-2 agent, or a portion thereof, is encoded by a nucleic acid comprising a nucleotide sequence described herein, *e.g.*, in **Table 10**. The one or more amino acid alterations (*e.g.*, substitutions), alone or in combination, may confer one or more desired biological properties described herein. In an embodiment, the IL-2 agent can modulate (*e.g.*, increase) Treg proliferation, survival, activation and/or function. In an embodiment, the modulation is selective or specific for the Tregs. For example, the IL-2 agent is capable of modulating the activity in Tregs but has limited or lacks the ability to promote the activity in non-regulatory T cells. In an embodiment, the IL-2 agent comprises a polypeptide (sometime referred to herein as “IL-2 polypeptide agent”).

IL-2 Variants

In an embodiment, the IL-2 agent comprises an IL-2 variant, *e.g.*, an IL-2 variant described herein.

In an embodiment, the IL-2 variant comprises an IL-2 polypeptide (*e.g.*, a human IL-2 polypeptide) described herein, or a functional fragment thereof. In an embodiment, the IL-2 variant comprises one or more amino acid alterations (*e.g.*, substitutions) described in **Table 9**. In an embodiment, the IL-2 variant comprises, or consists of, an amino acid sequence described in **Table 9**, or a functional fragment thereof. In an embodiment, the IL-2 variant is encoded by a nucleic acid comprising a nucleotide sequence described herein, *e.g.*, in **Table 10**.

Without wishing to be bound by theory, it is believed that in an embodiment, the IL-2 variants described herein, which have reduced human CD25 and/or reduced human CD122/CD132 binding affinity relative to a wild-type human IL-2 or a reference IL-2 variant, can have improved potency and/or selectivity for binding to and activating regulatory T cells (Tregs) than wild type IL-2 or other IL-2 variants. The IL-2 variants described herein can be identified, *e.g.*, by screening a library of mutated IL-2 polypeptides to identify IL-2 variants having a binding affinity for human CD25 and/or human CD122/CD132 in a desired range.

In an embodiment, the IL-2 variant has one or more (*e.g.*, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, or more) properties described herein, *e.g.*, different and/or improved properties, relative to a wild-type IL-2 or a reference IL-2 variant. In an embodiment, the IL-2 variant comprises one or more (*e.g.*, 2, 3, 4, 5, 6, 7, 8, 9, 10, or more) amino acid alterations (*e.g.*, substitutions) that provide different and/or improved properties, relative to a wild-type IL-2 or a reference IL-2 variant. In an embodiment, the IL-2 variant has one or more (*e.g.*, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, or all) of the following different and/or improved properties (*e.g.*, as determined by an assay described herein), relative to a wild-type IL-2 or a reference IL-2 variant:

- i) altered (*e.g.*, enhanced or increased) expression *in vitro* and/or *in vivo*;
- ii) altered (*e.g.*, reduced or decreased) aggregation *in vitro* and/or *in vivo*;

- iii) altered (*e.g.*, enhanced or increased) stability *in vitro* and/or *in vivo*;
 - iv) altered (*e.g.*, enhanced or increased) half-life *in vitro* and/or *in vivo*;
 - v) altered (*e.g.*, reduced or decreased) turnover and/or clearance *in vivo*;
 - vi) altered (*e.g.*, reduced or decreased) susceptibility to proteolysis *in vitro* and/or *in vivo*;
 - 5 vii) altered (*e.g.*, enhanced or increased) resistance to proteolysis *in vitro* and/or *in vivo*;
 - viii) altered (*e.g.*, reduced or decreased) binding capacity and/or binding affinity for human CD25 *in vitro* and/or *in vivo*;
 - ix) altered (*e.g.*, reduced or decreased) binding capacity and/or binding affinity for human CD132 *in vitro* and/or *in vivo*;
 - 10 x) altered (*e.g.*, reduced or decreased) binding capacity and/or binding affinity for the dimeric IL-2 receptor comprising human CD122 and human CD132 *in vitro* and/or *in vivo*;
 - xi) altered (*e.g.*, enhanced, increased, reduced, decreased, and/or selective) binding to Tregs *in vitro* and/or *in vivo*;
 - xii) altered (*e.g.*, enhanced, increased, reduced, decreased, and/or selective) activation of the
 - 15 IL-2 signaling pathway in Tregs *in vitro* and/or *in vivo*;
 - xiii) altered (*e.g.*, enhanced, increased, reduced, decreased, and/or selective) ability to induce or promote Treg expansion, activity, survival, and/or proliferation *in vitro* and/or *in vivo*.
- In an embodiment, the IL-2 variant has altered (*e.g.*, enhanced or increased) expression *in vitro* and/or *in vivo*, relative to a wild-type IL-2 or a reference IL-2 variant. In an embodiment, the
- 20 IL-2 variant has enhanced or increased expression (*e.g.*, in a bacterial or mammalian cell) relative to a wild-type IL-2. In an embodiment, the IL-2 variant has enhanced or increased expression (*e.g.*, in bacterial or mammalian cell) relative to a reference IL-2 variant. In an embodiment, the expression of the IL-2 variant is increased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the expression of the IL-2 variant is increased by
- 25 about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more. In an embodiment, the IL-2 variant expresses at a higher or increased level *in vitro* and/or *in vivo*, *e.g.*, increased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100%
- 30 or more *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined by an assay of protein concentration. In an embodiment, the IL-2 variant expresses at a higher or increased level, *e.g.*, increased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold,
- 35 about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined by an assay of protein concentration.

In an embodiment, the IL-2 variant has altered (*e.g.*, reduced or decreased) aggregation *in vitro* and/or *in vivo*, relative to a wild-type IL-2 or a reference IL-2 variant. In an embodiment, the IL-2 variant has reduced or decreased aggregation relative to a wild type IL-2. In an embodiment, the IL-2 variant has reduced or decreased aggregation relative to a reference IL-2 variant. In an

5 embodiment, the aggregation of the IL-2 variant is decreased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the aggregation of the IL-2 variant is decreased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more. In an embodiment, an IL-2 agent comprising an IL-2 variant described herein aggregates at lower or decreased level *in vitro* and/or *in vivo*, *e.g.*, decreased by

10 about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined by melting temperature analysis (*e.g.*, using fluorimetry), dynamic light scattering,

15 and/or size-exclusion chromatography. In an embodiment, an IL-2 agent comprising an IL-2 variant described herein aggregates at lower or decreased level, *e.g.*, decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 agent

20 comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant, *e.g.*, as determined by melting temperature analysis (*e.g.*, using fluorimetry), dynamic light scattering, and/or size-exclusion chromatography.

In an embodiment, the IL-2 variant has altered (*e.g.*, enhanced or increased) stability *in vitro* and/or *in vivo*, relative to a wild-type IL-2 or a reference IL-2 variant. In an embodiment, the IL-2

25 variant has enhanced or increased stability relative to a wild-type IL-2. In an embodiment, the IL-2 variant has enhanced or increased stability relative to a reference IL-2 variant. In an embodiment, the stability of the IL-2 variant is increased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the stability of the IL-2 variant is increased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or

30 about 10-fold, or more. In an embodiment, an IL-2 agent comprising an IL-variant described herein has enhanced or increased stability *in vitro* and/or *in vivo*, *e.g.*, increased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, increased by about 0.5-

35 fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to

an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant, *e.g.*, as determined by yeast surface display, circular dichroism or related spectroscopic techniques, and/or melting temperature analysis (*e.g.*, using fluorimetry).

In an embodiment, the IL-2 variant has altered (*e.g.*, enhanced or increased) half-life *in vitro* and/or *in vivo*, relative to a wild-type IL-2 or a reference IL-2 variant. In an embodiment, the IL-2 variant has enhanced or increased half-life relative to a wild-type IL-2. In an embodiment, the IL-2 variant has enhanced or increased half-life relative to a reference IL-2 variant. In an embodiment, the half-life of the IL-2 variant is increased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the half-life of the IL-2 variant is increased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more. In an embodiment, an IL-2 agent comprising an IL-2 variant described herein has enhanced or increased half-life *in vitro* and/or *in vivo*, *e.g.*, increased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, greater than about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant, *e.g.*, as determined by ELISA, flow cytometry, and/or mass spectrometry.

In an embodiment, the IL-2 variant has altered (*e.g.*, reduced or decreased) turnover *in vitro* and/or *in vivo*, relative to a wild-type IL-2 or a reference IL-2 variant. In an embodiment, the IL-2 variant has reduced or decreased turnover relative to a wild-type IL-2. In an embodiment, the IL-2 variant has reduced or decreased turnover relative to a reference IL-2 variant. In an embodiment, the turnover of the IL-2 variant is decreased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the turnover of the IL-2 variant is decreased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, about 10-fold, or more. In an embodiment, an IL-2 agent comprising an IL-2 variant described herein has a lower, reduced or decreased rate or level of turnover and/or clearance *in vivo*, *e.g.*, decreased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant, *e.g.*, as determined by ELISA, flow cytometry, and/or mass spectrometry.

- In an embodiment, the IL-2 has altered (*e.g.*, reduced or decreased) susceptibility to proteolysis *in vitro* and/or *in vivo*, relative to a wild-type IL-2 or a reference IL-2 variant. In an embodiment, the IL-2 variant has reduced or decreased susceptibility to proteolysis relative to IL-2 (*e.g.*, wild type human IL-2). In an embodiment, the IL-2 variant has reduced or decreased
- 5 susceptibility to proteolysis relative to a reference IL-2 variant. In an embodiment, the susceptibility to proteolysis of the IL-2 variant is decreased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the susceptibility to proteolysis of the IL-2 variant is decreased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more.
- 10 In an embodiment, the IL-2 variant has altered (*e.g.*, enhanced or increased) resistance to proteolysis *in vitro* and/or *in vivo*, relative to a wild-type IL-2 or a reference IL-2 variant. In an embodiment, the IL-2 variant has enhanced or increased resistance to proteolysis relative to a wild-type IL-2. In an embodiment, the IL-2 variant has enhanced or increased resistance to proteolysis relative to a reference IL-2 variant. In an embodiment, the resistance to proteolysis of the IL-2 variant
- 15 is increased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the resistance to proteolysis of the IL-2 variant is increased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more.
- In an embodiment, the IL-2 variant has altered (*e.g.*, reduced or decreased) binding capacity and/or binding affinity for human CD25 *in vitro* and/or *in vivo*, relative to a wild-type IL-2 or a reference IL-2 variant. In an embodiment, the IL-2 variant has reduced or decreased binding capacity and/or binding affinity for human CD25 relative to a wild-type human IL-2). In an embodiment, the IL-2 variant has reduced or decreased binding capacity and/or binding affinity for human CD25
- 20 relative to a reference IL-2 variant. In an embodiment, the binding capacity and/or binding affinity of the IL-2 variant for human CD25 is decreased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the binding capacity and/or binding affinity of the IL-2 variant for human CD25 is decreased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more. In an embodiment, an IL-2 agent comprising an IL-2 variant described herein has reduced or decreased binding affinity for
- 25 CD25 (*e.g.*, human CD25), *e.g.*, decreased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold,
- 30 about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 agent comprising a wild-

type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined by yeast surface display, surface plasmon resonance (*e.g.* Biacore) and/or bio-layer interferometry (*e.g.* Octet binding).

In an embodiment, the IL-2 variant binds to CD25 (*e.g.*, human CD25) with low affinity, *e.g.*, with a dissociation constant (K_D) of about 5-500 pM, *e.g.*, about 5, about 10, about 15, about 20, about 25, about 30, about 35, about 40, about 45, about 50, about 55, about 60, about 65, about 70, about 75, about 80, about 85, about 90, about 95, about 100, about 105, about 110, about 115, about 120, about 125, about 130, about 135, about 140, about 145, about 150, about 200, about 250, about 300, about 350, about 400, about 450, or about 500 pM, or *e.g.*, about 10 to about 400 pM, about 20 to about 300 pM, about 50 to about 200 pM, about 100 to about 150 pM, about 5 to about 10 pM, *e.g.*, about 10 to about 20 pM, about 20 to about 30 pM, or about 30 to about 40 pM, *e.g.*, about 40 to about 50 pM, about 50 to about 60 pM, about 60 to about 70 pM, about 70 to about 80 pM, about 80 to about 90 pM, about 90 to about 100 pM, about 100 to about 110 pM, about 110 to about 120 pM, about 120 to about 130 pM, about 130 to about 140 pM about 140 to about 150 pM, about 150 to about 200 pM, about 200 to about 250 pM, about 250 to about 300 pM, about 300 to about 350 pM, about 350 to about 400 pM, about 400 to about 500 pM, or *e.g.*, greater than about 5, about 10, about 15, about 20, about 25, about 30, about 35, about 40, about 45, about 50, about 55, about 60, about 65, about 70, about 75, about 80, about 85, about 90, about 95, about 100, about 105, about 110, about 115, about 120, about 125, about 130, about 135, about 140, about 145, about 150, about 200, about 250, about 300, about 350, about 400, about 450, or about 500 pM, *e.g.* as determined by yeast surface display, surface plasmon resonance (*e.g.* Biacore) and/or biolayer interferometry (*e.g.* Octet binding).

In an embodiment, the IL-2 variant binds to CD25 (*e.g.*, human CD25) with low affinity, *e.g.*, with a dissociation constant (K_D) of about 0.1-10 nM, *e.g.*, about 0.1, about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1, about 1.5, about 2, about 2.5, about 3, about 3.5, about 4, about 4.5, about 5, about 6, about 7, about 8, about 9, or about 10 nM, or *e.g.*, about 0.2 to about 5 nM, about 0.5 to about 2 nM, about 1 to 1.5 nM, about 0.1 to about 0.2 nM, *e.g.*, about 0.2 to about 0.3 nM, about 0.3 to about 0.4 nM, or about 0.4 to about 0.5 nM, *e.g.*, about 0.5 to about 0.6 nM, about 0.6 to about 0.7 nM, about 0.7 to about 0.8 nM, about 0.8 to about 0.9 nM, about 0.9 to about 1 nM, about 1 to about 1.5 nM, about 1.5 to about 2 nM, about 2.5 to about 3 nM, about 3.5 to about 4 nM, about 4 to about 4.5 nM, about 4.5 to about 5 nM, about 5 to about 6 nM, about 6 to about 7 nM, about 7 to about 8 nM, about 8 to about 9 nM, or about 9 to about 10 nM, or *e.g.*, greater than about 0.1, about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, or about 10 nM, *e.g.*, as determined by surface plasmon resonance (*e.g.* Biacore) and/or bio-layer interferometry (*e.g.*, Octet binding).

In an embodiment, the IL-2 variant has altered (*e.g.*, reduced or decreased) binding capacity and/or binding affinity for human CD132 *in vitro* and/or *in vivo*, relative to a wild-type IL-2 or a reference IL-2 variant. In an embodiment, the IL-2 variant has reduced or decreased binding capacity

and/or binding affinity for human CD132 relative to a wild-type IL-2. In an embodiment, the IL-2 variant has reduced or decreased binding capacity and/or binding affinity for human CD132 relative to a reference IL-2 variant. In an embodiment, the binding capacity and/or binding affinity of the IL-2 variant for human CD132 is decreased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%,
 5 80%, 90%, 95%, or about 100%, or more. In an embodiment, the binding capacity and/or binding affinity of the IL-2 variant for human CD132 is decreased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more.

In an embodiment, the IL-2 variant has altered (*e.g.*, reduced or decreased) binding capacity and/or binding affinity for the human dimeric IL-2 receptor comprising human CD122 and human
 10 CD132 *in vitro* and/or *in vivo*, relative to a wild-type IL-2 or a reference IL-2 variant. In an embodiment, the IL-2 variant has reduced or decreased binding capacity and/or binding affinity for the human dimeric IL-2 receptor comprising human CD122 and human CD132 relative to a wild-type IL-2. In an embodiment, the IL-2 variant has reduced or decreased binding capacity and/or binding affinity for the human dimeric IL-2 receptor comprising human CD122 and human CD132 relative to
 15 a reference IL-2 variant. In an embodiment, the binding capacity and/or binding affinity of the IL-2 variant for the human dimeric IL-2 receptor comprising human CD122 and human CD132 is decreased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the binding capacity and/or binding affinity of the IL-2 variant for the human dimeric IL-2 receptor comprising human CD122 and human CD132 is decreased by about
 20 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more.

In an embodiment, the IL-2 variant has reduced or decreased binding affinity for CD122/CD132 heterodimer (*e.g.*, human CD122/CD132 heterodimer), *e.g.*, decreased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about
 25 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant
 30 *e.g.*, as determined by yeast surface display, surface plasmon resonance (*e.g.* Biacore) and/or bio-layer interferometry (*e.g.* Octet binding).

In an embodiment, the IL-2 variant binds to CD122/CD132 heterodimer (*e.g.*, human CD122/CD132 heterodimer) with low affinity, *e.g.*, with a dissociation constant (KD) of about 0.2-20 nM, *e.g.*, about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1,
 35 about 1.1, about 1.2, about 1.3, about 1.4, about 1.5, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, about 10, about 11, about 12, about 13, about 14, about 15, about 16, about 17, about 18, or about 20 nM, or *e.g.*, about 0.5 to about 15 nM, about 1 to about 10 nM, about 2 to about

5 nM, about 0.2 to about 0.3 nM, about 0.3 to about 0.4 nM, about 0.4 to about 0.5 nM, about 0.5 to about 0.6 nM, about 0.6 to about 0.7 nM, about 0.7 to about 0.8 nM, about 0.8 to about 0.9 nM, about 0.9 to about 1 nM, about 1 to about 1.1 nM, about 1.1 to about 1.2 nM, about 1.2 to about 1.3 nM, about 1.3 to about 1.4 nM, about 1.4 to about 1.5 nM, about 1.5 to about 2 nM, about 2 to about 3 nM, about 3 to about 4 nM, about 4 to about 5 nM, about 5 to about 6 nM, about 6 to about 7 nM, about 7 to about 8 nM, about 8 to about 9 nM, about 9 to about 10 nM, about 10 to about 11 nM, about 11 to about 12 nM, about 12 to about 13 nM, about 13 to about 14 nM, about 14 to about 15 nM, about 15 to about 16 nM, about 16 to about 17 nM, about 17 to about 18 nM, about 18 to about 19 nM, or about 19 to about 20 nM, or *e.g.*, greater than about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1, about 1.1, about 1.2, about 1.3, about 1.4, about 1.5, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, about 10, about 11, about 12, about 13, about 14, about 15, about 16, about 17, about 18, or about 20 nM, *e.g.*, as determined by yeast surface display.

In an embodiment, the IL-2 variant binds to CD122/CD132 heterodimer (*e.g.*, human CD122/CD132 heterodimer) with low affinity, *e.g.*, with a dissociation constant (KD) of about 0.2-300 nM, *e.g.*, about 0.2 nM, about 0.5 nM, about 1 nM, about 2 nM, about 5 nM, about 10 nM, about 15 nM, about 20 nM, about 25 nM, about 30 nM, about 40 nM, about 50 nM, about 60 nM, about 70 nM, about 80 nM, about 90 nM, about 100 nM, about 110 nM, about 120 nM, about 130 nM, about 140 nM, about 150 nM, about 160 nM, about 170 nM, about 180 nM, about 190 nM, about 200 nM, about 210 nM, about 220 nM, about 230 nM, about 240 nM, about 250 nM, about 260 nM, about 270 nM, about 280 nM, about 290 nM, or about 300 nM, or *e.g.*, about 0.5 to about 15 nM, about 1 to about 10 nM, about 2 to about 5 nM, about 0.2 nM to about 0.5 nM, about 0.5 nM to about 1 nM, about 1 to about 2 nM, about 2 nM to about 5 nM, about 5 nM to about 10 nM, about 10 nM to about 15 nM, about 15 nM to about 20 nM, about 20 nM to about 25 nM, about 25 to about 30 nM, about 30 nM to about 40 nM, about 40 nM to about 50 nM, about 50 to about 60 nM, about 60 to about 70 nM, about 70 nM to about 80 nM, about 80 nM to about 90 nM, about 90 nM to about 100 nM, about 100 nM to about 110 nM, about 110 nM to about 120 nM, about 120 nM to about 130 nM, about 130 nM to about 140 nM, about 140 nM to about 150 nM, about 150 nM to about 160 nM, about 160 nM to about 170 nM, about 170 nM to about 180 nM, about 180 nM to about 190 nM, about 190 nM to about 200 nM, about 200 nM to about 210 nM, about 210 nM to about 220 nM, about 220 nM to about 230 nM, about 230 nM to about 240 nM, about 240 nM to about 250 nM, about 250 nM to about 260 nM, about 260 nM to about 270 nM, about 270 nM to about 280 nM, about 280 nM to about 290 nM, or about 290 nM to about 300 nM, or *e.g.*, greater than about 0.2, about 0.5, about 1, about 2, about 5, about 10, about 15, about 20 nM, about 25 nM, about 30 nM, about 40 nM, about 50 nM, about 60 nM, about 70 nM, about 80 nM, about 90 nM, about 100 nM, about 110 nM, about 120 nM, about 130 nM, about 140 nM, about 150 nM, about 160 nM, about 170 nM, about 180 nM, about 190 nM, about 200 nM, about 210 nM, about 220 nM, about 230 nM, about 240 nM, about 250 nM, about 260 nM, about 270 nM, about 280 nM, about 290 nM, or greater than about 300 nM, *e.g.*, as

determined by surface plasmon resonance (*e.g.* Biacore) and/or biolayer interferometry (*e.g.* Octet binding).

In an embodiment, the IL-2 variant has altered (*e.g.*, enhanced, increased, and/or selective) binding to Tregs *in vitro* and/or *in vivo*, relative to a wild-type IL-2 or a reference IL-2 variant. In an embodiment, the IL-2 variant has enhanced or increased binding to Tregs relative to a wild-type IL-2. In an embodiment, the IL-2 variant has selective binding to Tregs relative to IL-2 (*e.g.*, wild type human IL-2). In an embodiment, the IL-2 variant has enhanced or increased binding to Tregs relative to a reference IL-2 variant. In an embodiment, the IL-2 variant has selective binding to Tregs relative to a reference IL-2 variant. In an embodiment, the binding to Tregs is increased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the binding to Tregs is increased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more.

In an embodiment, the IL-2 variant has altered (*e.g.*, enhanced, increased, and/or selective) activation of the IL-2 signaling pathway in Tregs *in vitro* and/or *in vivo*, relative to a wild-type IL-2 or a reference IL-2 variant. In an embodiment, the IL-2 variant has enhanced or increased activation of the IL-2 signaling pathway in Tregs relative to a wild-type IL-2. In an embodiment, the IL-2 variant has selective activation of the IL-2 signaling pathway in Tregs relative to a wild-type IL-2. In an embodiment, the IL-2 variant has enhanced or increased activation of the IL-2 signaling pathway in Tregs relative to a reference IL-2 variant. In an embodiment, the IL-2 variant has selective activation of the IL-2 signaling pathway in Tregs relative to a reference IL-2 variant. In an embodiment, the activation of the IL-2 signaling pathway in Tregs is increased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the activation of the IL-2 signaling pathway in Tregs is increased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more.

In an embodiment, the IL-2 variant selectively activates IL-2 signaling in T regulatory cells *in vitro* and/or *in vivo*, *e.g.*, having an T helper EC50/Treg EC50 ratio greater than about 1, about 2, about 3, about 4, about 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000, 1500, 2000, 2500, or about 3000 or more relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined flow cytometry.

In an embodiment, the IL-2 variant selectively activates IL-2 signaling in T regulatory cells *in vitro* and/or *in vivo*, *e.g.*, having an NK cell EC50/Treg EC50 ratio greater than *e.g.*, about 1, about 2, about 3, about 4, about 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000, 1500, 2000, 2500, or about 3000 or more, or *e.g.*, greater than 1 and about 1 to 2, about 2 to 3, about 3 to 4, about 4 to 5, greater than 1 and about 1 to 10, greater than

1 and about 1 to 20, greater than 1 and about 1 to 30, greater than 1 and about 1 to 40, greater than 1 and about 1 to 50, about 2 to 10, about 2 to 20, about 2 to 30, about 2 to 40, 2 to 50, about 5 to 10, about 5 to 20, about 5 to 30, about 5 to 40, about 5 to 50, about 10 to 20, about 10 to 30, about 10 to 40 about 10 to 50, about 20 to 40, about 20 to 50, about 50 to 100, about 100 to 200, about 200 to 500,
 5 about 500 to 1000, about 1000 to 2000, or about 1000 to 3000, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined flow cytometry.

In an embodiment, the IL-2 variant has altered (*e.g.*, enhanced, increased, and/or selective) ability to induce or promote Treg expansion, activity, survival, and/or proliferation *in vitro* and/or *in vivo*, relative to a wild-type IL-2 or a reference IL-2 variant. In an embodiment, the IL-2 variant has enhanced or increased ability to induce or promote Treg expansion, activity, survival, and/or proliferation relative to a wild-type IL-2. In an embodiment, the IL-2 variant has selective ability to induce or promote Treg expansion, activity, survival, and/or proliferation relative to a wild-type IL-2. In an embodiment, the IL-2 variant has enhanced or increased ability to induce or promote Treg
 10 expansion, activity, survival, and/or proliferation relative to a reference IL-2 variant. In an embodiment, the IL-2 variant has selective ability to induce or promote Treg expansion, activity, survival, and/or proliferation relative to a reference IL-2 variant. In an embodiment, the ability to induce or promote Treg expansion, activity, survival, and/or proliferation is increased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an
 15 embodiment, the ability to induce or promote Treg expansion, activity, survival, and/or proliferation is increased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more.

In an embodiment, the IL-2 variant has enhanced or increased potency and/or ability to induce or promote T regulatory cell activity, *e.g.*, having an EC50 for Tregs that is lower by about 1%, about
 25 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to
 30 an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined flow cytometry.

In an embodiment, the IL-2 variant has reduced or decreased potency and/or ability to induce or promote T regulatory cell activity, *e.g.*, having an EC50 for Tregs that is higher by about 1%, about
 35 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, or about 100% or more, or *e.g.*, decreased by about

0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, about 50-fold, about 100-fold, about 200-fold, about 500-fold, about 1000-fold, about 2000-fold, about 5000-fold, about 10,000, about 15,000-fold, or about 20,000-fold or more *e.g.*, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant *e.g.*, as determined flow cytometry.

In an embodiment, the T helper cell described herein is a CD45+CD3+CD4+Foxp3- cell, *e.g.*, determined by flow cytometry. In an embodiment, the Treg described herein is CD45+CD3+CD4+Foxp3+ cell, *e.g.*, determined by flow cytometry. In an embodiment, the NK cell described herein is a CD45+CD3- cell that is CD56+ and/or CD16+, *e.g.*, determined by flow cytometry. In an embodiment, the NK cell described herein is a CD45+CD3-CD56+ cell, *e.g.*, determined by flow cytometry.

In an embodiment, the IL-2 variant has one or more of the same, or substantially the same, structural and/or functional properties, as a wild-type IL-2 or a reference IL-2 variant.

In an embodiment, the reference IL-2 variant comprises an amino acid sequence that has about 75%, 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity to an IL-2 variant described herein. In an embodiment, the reference IL-2 variant comprises the amino acid sequence of SEQ ID NO: 1 (IL-2 C125S). In an embodiment, the IL-2 variant comprises an amino acid sequence that is at least 80%, 85%, 90%, 95%, or 98% identical to the amino acid sequence of SEQ ID NO: 1 and comprises one or more (2, 3, 4, 5, 6, 7, 8, 9, 10, or more) amino acid alterations (*e.g.*, substitutions) described herein.

For purposes of this disclosure, IL-2 variant position numbering begins at the first amino acid following the signal peptide of the exemplary wild type (WT) human IL-2 polypeptide:

MYRMQLLSIALSLALVTNS/A1/P2/T3/S4/S5/S6/T7/K8/K9/T10/Q11/L12/Q13/L14/E15/H16/L17/L18/L19/D20/L21/Q22/M23/I24/L25/N26/G27/I28/N29/N30/Y31/K32/N33/P34/K35/L36/T37/R38/M39/L40/T41/F42/K43/F44/Y45/M46/P47/K48/K49/A50/T51/E52/L53/K54/H55/L56/Q57/C58/L59/E60/E61/E62/L63/K64/P65/L66/E67/E68/V69/L70/N71/L72/A73/Q74/S75/K76/N77/F78/H79/L80/R81/P82/R83/D84/L85/I86/S87/N88/I89/N90/V91/I92/V93/L94/E95/L96/K97/G98/S99/E100/T101/T102/F103/M104/C105/E106/Y107/A108/D109/E110/T111/A112/T113/I114/V115/E116/F117/L118/N119/R120/W121/I122/T123/F124/C125/Q126/S127/I128/I129/S130/T131/L132/T133 (SEQ ID NO: 360; Uniprot P60568; signal peptide underlined). The corresponding amino acid sequence without the signal peptide is shown as SEQ ID NO: 1031.

In an embodiment, the IL-2 agent comprises amino acid alteration(s) (*e.g.*, substitution(s)) at position(s) corresponding to human IL-2 (*e.g.*, comprising the amino acid sequence of SEQ ID NO: 1031).

In an embodiment, the IL-2 variant comprises the amino acid sequence of
 A1/P2/X3/S4/S5/S6/T7/K8/K9/T10/Q11/L12/Q13/L14/E15/X16/L17/L18/L19/D20/L21/Q22/M23/I2
 4/L25/N26/G27/X28/N29/N30/Y31/K32/N33/P34/X35/L36/T37/X38/M39/L40/T41/X42/K43/F44/Y
 45/M46/P47/K48/K49/A50/T51/E52/L53/K54/H55/L56/Q57/C58/L59/E60/E61/E62/L63/K64/P65/L
 5 66/E67/X68/X69/L70/N71/L72/A73/X74/S75/K76/N77/F78/H79/L80/R81/P82/R83/X84/L85/I86/X8
 7/X88/I89/N90/V91/X92/V93/L94/E95/L96/K97/G98/S99/E100/T101/T102/F103/M104/C105/E106/
 Y107/A108/D109/E110/T111/A112/T113/I114/V115/E116/F117/L118/N119/R120/W121/I122/T123
 /F124/X125/X126/S127/I128/I129/S130/T131/L132/T133 (SEQ ID NO: 1032),

wherein: X3 is T or A; X16 is H, L or N; X28 is I, T or F; X35 is K or E; X38 is R, E, N or Q;
 10 X42 is F, A, K or Q; X68 is E, Q or N; X69 is V or A; X74 is Q or P; X84 is D or V; X87 is S or R;
 X88 is N, D, L or S; X92 is I or S; X125 is C or S; and X126 is Q, K, R or T, provided that the IL-2
 variant does not comprise the amino acid sequence of SEQ ID NO: 1 or 1031. In an embodiment, the
 IL-2 variant comprises, or consists of, an IL-2 variant amino acid sequence described herein.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at
 15 one or more (*e.g.*, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or all) of positions, as described herein. In
 an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at one or more
 (*e.g.*, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or all) of positions chosen from T3, H16, I28, K35, R38,
 F42, E68, V69, Q74, D84, S87, N88, I92, C125, or Q126.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at
 20 position T3. In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*,
 substitution) at position H16. In an embodiment, the IL-2 variant comprises an amino acid alteration
 (*e.g.*, substitution) at position I28. In an embodiment, the IL-2 variant comprises an amino acid
 alteration (*e.g.*, substitution) at position K35. In an embodiment, the IL-2 variant comprises an amino
 acid alteration (*e.g.*, substitution) at position R38. In an embodiment, the IL-2 variant comprises an
 25 amino acid alteration (*e.g.*, substitution) at position F42. In an embodiment, the IL-2 variant
 comprises an amino acid alteration (*e.g.*, substitution) at position E68. In an embodiment, the IL-2
 variant comprises an amino acid alteration (*e.g.*, substitution) at position V69. In an embodiment, the
 IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position Q74. In an embodiment,
 the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position D84. In an
 30 embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position S87.
 In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position
 N88. In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at
 position I92. In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*,
 substitution) at position C125. In an embodiment, the IL-2 variant comprises an amino acid alteration
 35 (*e.g.*, substitution) at position Q126.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at
 position V69, Q74, or a combination thereof. In an embodiment, the IL-2 variant comprises an amino

acid alteration (*e.g.*, substitution) at positions V69 and Q74. In an embodiment, the IL-2 variant comprises the amino acid substitution V69A. In an embodiment, the IL-2 variant comprises the amino acid substitution Q74P.

5 In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position H16, I92, D84, or a combination thereof. In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position H16, optionally wherein the amino acid substitution is H16N, H16L, or H16D. In an embodiment, the IL-2 variant comprises the amino acid substitution H16N. In an embodiment, the IL-2 variant comprises the amino acid substitution H16L. In an embodiment, the IL-2 variant comprises the amino acid substitution H16D.

10 In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position at I92, optionally wherein the amino acid substitution is I92S. In an embodiment, the IL-2 variant comprises the amino acid substitution I92S.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position D84, optionally wherein the amino acid substitution is D84V. In an embodiment, the IL-2
15 variant comprises the amino acid substitution is D84V.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position K35, R38, F42, E68, or a combination thereof. In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position K35, optionally wherein the amino acid substitution is K35E. In an embodiment, IL-2 variant comprises the amino acid substitution K35E.

20 In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position R38, optionally wherein the amino acid substitution is R38E, R38N or R38Q. In an embodiment, the IL-2 variant comprises the amino acid substitution R38N. In an embodiment, the IL-2 variant comprises the amino acid substitution R38Q.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at
25 position F42, optionally wherein the amino acid substitution is F42K or F42Q. In an embodiment, the IL-2 variant comprises the amino acid substitution F42K. In an embodiment, the IL-2 variant comprises the amino acid substitution F42Q.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution): (i) at (a) positions V69 and Q74, (b) position K35, or (c) positions V69, Q74, and K35; and (ii) at one, two, or all of positions H16, I92, or D84. In an embodiment, the IL-2 variant further comprises an amino acid alteration (*e.g.*, substitution) at one, two, or all of positions R38, F42, or E68.
30

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution): (i) at (a) positions V69 and Q74, (b) position K35, or (c) positions V69, Q74, and K35; and (ii) at (a) one, two, or all of positions H16, I92, or D84; or (b) one, two, or all of positions R38, F42, or E68.

35 In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution): (i) at (a) positions V69 and Q74, (b) position K35, or (c) positions V69, Q74, and K35; and (ii) at (a) one, two, or all of positions H16, I92, or D84; and (b) one, two, or all of positions R38, F42, or E68.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and H16, optionally wherein the amino acid substitution is V69A, Q74P, and H16N or H16L, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions V69A, Q74P, and H16N or H16L. In an embodiment, the IL-2 variant comprises the amino acid substitutions V69A, Q74P, and H16N. In an embodiment, the IL-2 variant comprises the amino acid substitutions V69A, Q74P, and H16L.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and I92, optionally wherein the amino acid substitution is V69A, Q74P, and I92S, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions V69A, Q74P, and I92S.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and D84, optionally wherein the amino acid substitution is V69A, Q74P, and D84V, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions V69A, Q74P, and D84V.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and R38, optionally wherein the amino acid substitution is V69A, Q74P, and R38Q, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions V69A, Q74P, and R38Q.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and F42, optionally wherein the amino acid substitution is V69A, Q74P, and F42Q, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions V69A, Q74P, and F42Q.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and R38, optionally wherein the amino acid substitution is V69A, Q74P, and R38N, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions V69A, Q74P, and R38N.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and R38, optionally wherein the amino acid substitution is V69A, Q74P, and R38E, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitution V69A, Q74P, and R38E.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, K35, and H16, optionally wherein the amino acid substitution is V69A, Q74P, K35E, and H16N, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions V69A, Q74P, K35E, and H16N.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, K35, H16, and R38, optionally wherein the amino acid substitution is V69A,

Q74P, K35E, H16N, and R38N, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions V69A, Q74P, K35E, H16N, and R38N.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, H16, and R38, optionally wherein the amino acid substitution is V69A, Q74P, H16N, and R38N or R38Q, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions V69A, Q74P, H16N, and R38N or R38Q. In an embodiment, the IL-2 variant comprises the amino acid substitutions V69A, Q74P, H16N, and R38N. In an embodiment, the IL-2 variant comprises the amino acid substitutions V69A, Q74P, H16N, and R38Q.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position I28, E68, S87, N88, Q126, or a combination thereof.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position I28, optionally wherein the amino acid substitution is I28T or I28F. In an embodiment, the IL-2 variant comprises the amino acid substitution I28T. In an embodiment, the IL-2 variant comprises the amino acid substitution I28F.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position E68, optionally wherein the amino acid substitution is E68Q or E68N. In an embodiment, the IL-2 variant comprises the amino acid substitution E68Q. In an embodiment, the IL-2 variant comprises the amino acid substitution E68N.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position S87, optionally wherein the amino acid substitution is S87R. In an embodiment, the IL-2 variant comprises the amino acid substitution S87R.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position N88, optionally wherein the amino acid substitution is N88S, N88L, or N88D. In an embodiment, the IL-2 variant comprises the amino acid substitution N88S, N88L, or N88D. In an embodiment, the IL-2 variant comprises the amino acid substitution N88S. In an embodiment, the IL-2 variant comprises the amino acid substitution N88L. In an embodiment, the IL-2 variant comprises the amino acid substitution N88D.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position Q126, optionally wherein the amino acid substitution is Q126T, Q126K, or Q126R. In an embodiment, the IL-2 variant comprises the amino acid substitution Q126T, Q126K, or Q126R. In an embodiment, the IL-2 variant comprises the amino acid substitution Q126T, Q126K, or Q126R. In an embodiment, the IL-2 variant comprises the amino acid substitution Q126T. In an embodiment, the IL-2 variant comprises the amino acid substitution Q126K. In an embodiment, the IL-2 variant comprises the amino acid substitution Q126R.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position C125, optionally wherein the amino acid substitution is C125S. In an embodiment, the IL-2 variant comprises the amino acid substitution C125S.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position T3, optionally wherein the amino acid substitution is T3A. In an embodiment, the IL-2 variant comprises the amino acid substitution T3A.

5 In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and C125, optionally wherein the amino acid substitution is V69A, Q74P, and C125S, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions V69A, Q74P, and C125S.

10 In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position T3, H16, I92, or a combination thereof, optionally wherein the amino acid substitution is T3A, H16N, and I92S, respectively.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position H16, V69, Q74, and C125, optionally wherein the amino acid substitution is H16N, V69A, Q74P, and C125S, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions H16N, V69A, Q74P, and C125S.

15 In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position H16, V69, Q74, and C125, optionally wherein the amino acid substitution is H16L, V69A, Q74P, and C125S, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions H16L, V69A, Q74P, and C125S.

20 In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position H16, V69, Q74, I92, and C125, optionally wherein the amino acid substitution is H16L, V69A, Q74P, I92S, and C125S, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions H16L, V69A, Q74P, I92S, and C125S.

25 In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position T3, V69, Q74, and C125, optionally wherein the amino acid substitution is T3A, V69A, Q74P, and C125S, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions T3A, V69A, Q74P, and C125S.

30 In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position T3, H16, V69, Q74, and C125, optionally wherein the amino acid substitution is T3A, H16N or H16L, V69A, Q74P, and C125S, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions T3A, H16N, V69A, Q74P, and C125S. In an embodiment, the IL-2 variant comprises the amino acid substitutions T3A, H16L, V69A, Q74P, and C125S.

35 In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position T3, V69, Q74, I92, and C125, optionally wherein the amino acid substitution is T3A, V69A, Q74P, I92S, and C125S, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions T3A, V69A, Q74P, I92S, and C125S. In an embodiment, the IL-2 variant comprises the amino acid substitutions T3A, V69A, Q74P, I92S, and C125S.

In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position H16, K35, V69 and Q74, optionally wherein the amino acid substitution is H16L, K35E, V69A, and Q74P, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions H16L, K35E, V69A, and Q74P.

5 In an embodiment, the IL-2 variant comprises an amino acid alteration (*e.g.*, substitution) at position H16, R38, V69A, and Q74P, optionally wherein the amino acid substitution is H16L, R38Q, V69A, and Q74P, respectively. In an embodiment, the IL-2 variant comprises the amino acid substitutions H16L, R38Q, V69A, and Q74P.

10 In an embodiment, the IL-2 variant comprises amino acid substitutions H16L, V69A, Q74P, and C125S. In an embodiment, the IL-2 variant comprises amino acid substitutions H16N, V69A, Q74P, and C125S.

There are various technical effects associated with the presence of the particular sets of mutations described herein, for example, a set of mutations comprising an amino acid substitution at position H16, in combination with amino acid substitutions at positions V69, Q74, and C125 (*e.g.*,
15 H16L, V69A, Q74P, and C125S). Without wishing to be bound by theory, it is believed that in an embodiment, an IL-2 variant comprising the aforesaid mutations also has reduced binding affinity for CD122 and/or CD132, which increases the potency and selectivity of the IL-2 variant for regulatory T cells (Treg) compared to other T cell types. Without wishing to be bound by theory, it is also believed that in an embodiment, an IL-2 variant comprising the aforesaid mutations is significantly stable, *e.g.*,
20 due to the presence of stabilizing V69A and Q74P mutations. For example, it was unexpected discovered that the V69A and Q74P substitutions do not substantially increase the binding affinity of the IL-2 variant for CD25, but rather stabilize the IL-2 variant in an active conformation sufficient for binding to CD25. Therefore, an IL-2 variant comprising these mutations selectively activates regulatory T cells (Treg) and is significantly stable. Without wishing to be bound by theory, it is
25 further believed that in an embodiment, an IL-2 variant comprising the aforesaid mutations has reduced or decreased binding capacity and/or binding affinity for CD25, which improves the lifetime of the IL-2 variant. Without wishing to be bound by theory, it is also believed that in an embodiment, an IL-2 variant comprising these mutations does not substantially promote expansion, activation, survival, and/or proliferation of T effector cells and/or natural killer (NK) cells *in vitro* and/or *in vivo*.
30 Without wishing to be bound by theory, it is further believed that in an embodiment, an IL-2 variant comprising the aforesaid mutations has reduced incorrect disulfide pairing and improved stability, *e.g.*, due to the presence of the C125S mutation. In an embodiment, an IL-2 agent comprising the H16L mutation has reduced binding affinity for CD122 and/or CD132 and/or increased potency and selectivity for Treg over other T cell types, compared to an IL-2 agent comprising other H16
35 mutations. These properties make an IL-2 variant comprising these mutations particularly suitable for treating disorders and conditions arising from abnormal immune responses, such as autoimmune diseases.

Thus, in an embodiment, an IL-2 variant (*e.g.*, IL-2 variant or IL-2 fusion protein) comprising an amino acid substitution at position H16 in combination with amino acid substitutions at positions V69, Q74, and C125 (*e.g.*, H16L, V69A, Q74P, and C125S), has *inter alia* one or more (*e.g.*, 2, 3, 4, 5, 6, 7, or all) of the following properties relative to a wild-type IL-2 or a reference IL-2 variant that

5 does not comprise the amino acid substitutions: (i) enhanced or increased stability *in vitro* or *in vivo*; (ii) reduced or decreased binding capacity and/or binding affinity for human CD122 *in vitro* and/or *in vivo*; (iii) reduced or decreased binding capacity and/or binding affinity for human CD132 *in vitro* and/or *in vivo*; (iv) reduced or decreased affinity of the IL-2 variant for the heterodimeric IL-2 receptor composed of human CD122 and human CD132 (*i.e.* human CD122/CD132 heterodimer) *in*

10 *vitro* and/or *in vivo*; (v) reduced or decreased binding capacity and/or binding affinity for human CD25 *in vitro* and/or *in vivo*; (vi) selective binding to regulatory T cells (*e.g.* Foxp3⁺ T cells); (vii) selective activation of the IL-2 signaling pathway in T regulatory cells (Tregs) *in vitro* or *in vivo*; or (viii) enhanced or increased ability to induce or promote Treg expansion, activity, survival and/or proliferation.

15 In an embodiment, the IL-2 variant comprises, or consists of, an amino acid sequence chosen from: SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID

20 NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 1000, SEQ ID NO: 1001, SEQ ID NO: 1002, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,

25 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the IL-2 variant comprises, or consists of, the amino acid sequence of SEQ ID NO: 4, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the IL-2 variant

30 comprises, or consists of, the amino acid sequence of SEQ ID NO: 5, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the IL-2 variant comprises, or consists of, the amino acid sequence of SEQ ID NO: 11, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%,

35 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the IL-2 variant comprises, or consists of, the amino acid sequence of SEQ ID NO:

1000, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the IL-2 variant comprises, or consists of, the amino acid sequence of SEQ ID NO: 1001, or an amino acid sequence
 5 with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the IL-2 variant comprises, or consists of, the amino acid sequence of SEQ ID NO: 1002, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more
 10 than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the IL-2 variant comprises, or consists of, the amino acid sequence of any of SEQ ID NOs: 4, 5, 11, 1000, 1001, or 1002, or a functional fragment thereof. In an embodiment, the IL-2 variant comprises, or consists of, the amino acid sequence of SEQ ID NO: 4 or 5, or a functional fragment thereof. In an embodiment, the IL-2 variant comprises, or consists of, the amino
 15 acid sequence of SEQ ID NO: 4, or a functional fragment thereof. In an embodiment, the IL-2 variant comprises, or consists of, the amino acid sequence of SEQ ID NO: 5, or a functional fragment thereof. In an embodiment, the IL-2 variant comprises, or consists of, the amino acid sequence of SEQ ID NO: 11, or a functional fragment thereof. In an embodiment, the IL-2 variant comprises, or consists of, the amino acid sequence of SEQ ID NO: 1000, or a functional fragment thereof. In an embodiment, the
 20 IL-2 variant comprises, or consists of, the amino acid sequence of SEQ ID NO: 1001, or a functional fragment thereof. In an embodiment, the IL-2 variant comprises, or consists of, the amino acid sequence of SEQ ID NO: 1002, or a functional fragment thereof.

Without wishing to be bound by theory, it is believed that in an embodiment, an IL-2 variant comprising, or consisting of, the amino acid sequence of SEQ ID NO: 5, or a functional fragment
 25 thereof, can have at least one or more of the following advantageous properties: (i) has reduced binding affinity for CD122 and/or CD132, which increases the potency and selectivity of the IL-2 agent for regulatory T cells (Treg) compared to other T cell types; (ii) is significantly stable, *e.g.*, due to the presence of stabilizing V69A and Q74P mutations; (iii) has reduced or decreased binding capacity and/or binding affinity for CD25, which improves the lifetime of the IL-2 agent; (iv) does not
 30 substantially promote expansion, activation, survival, and/or proliferation of T effector cells and/or natural killer (NK) cells *in vitro* and/or *in vivo*; and/or (v) has reduced incorrect disulfide pairing and improved stability, *e.g.*, due to the presence of the C125S mutation. In an embodiment, an IL-2 agent comprising the H16L mutation has reduced binding affinity for CD122 and/or CD132 and/or increased potency and selectivity for Treg over other T cell types, compared to an IL-2 agent
 35 comprising other H16 mutations. These properties make an IL-2 variant comprising, or consisting of, the amino acid sequence of SEQ ID NO: 5 particularly suitable for treating disorders and conditions arising from abnormal immune responses, such as autoimmune diseases.

Thus, in an embodiment, an IL-2 variant comprising, or consisting of, the amino acid sequence SEQ ID NO: 5, or a functional fragment thereof, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto, has *inter alia* one or more (e.g., 2, 3, 4, 5, 6, 7, or all) of the following properties relative to a wild-type IL-2 or a reference IL-2 variant that does not comprise the amino acid substitutions: (i) enhanced or increased stability *in vitro* or *in vivo*; (ii) reduced or decreased binding capacity and/or binding affinity for human CD122 *in vitro* and/or *in vivo*; (iii) reduced or decreased binding capacity and/or binding affinity for human CD132 *in vitro* and/or *in vivo*; (iv) reduced or decreased affinity of the IL-2 variant for the heterodimeric IL-2 receptor composed of human CD122 and human CD132 (*i.e.* human CD122/CD132 heterodimer) *in vitro* and/or *in vivo*; (v) reduced or decreased or substantially unchanged binding capacity and/or binding affinity for human CD25 *in vitro* and/or *in vivo*; (vi) selective binding to regulatory T cells (e.g. Foxp3⁺ T cells); (vii) selective activation of the IL-2 signaling pathway in T regulatory cells (Tregs) *in vitro* or *in vivo*; or (viii) enhanced or increased ability to induce or promote Treg expansion, activity, survival and/or proliferation.

As described further herein, the disclosure provides IL-2 fusion proteins, IL-2 complexes, and IL-2 conjugates comprising an IL-2 variant described herein. In an embodiment, one or more different and/or improved properties ascribed to an IL-2 variant described herein is maintained, transferred, or imparted to the IL-2 fusion protein, IL-2 complex, or IL-2. For the purposes of the present disclosure, the terms “IL-2 variant” and “IL-2 mutein” may be used interchangeably herein.

In an embodiment, the IL-2 variant comprises a polypeptide (sometime referred to herein as “IL-2 variant polypeptide”). This disclosure provides an isolated nucleic acid molecule encoding an IL-2 variant described herein, and vectors and host cells thereof. The nucleic acid molecule includes, but is not limited to, RNA, genomic DNA and cDNA.

IL-2 Fusion Proteins

In an embodiment, the IL-2 agent comprises an IL-2 fusion protein, *e.g.*, an IL-2 fusion protein described herein.

In an embodiment, the IL-2 fusion protein comprises an IL-2 variant, *e.g.*, an IL-2 variant described herein. In an embodiment, the IL-2 fusion protein comprises one or more amino acid alterations (*e.g.*, substitutions) described in **Table 9**. In an embodiment, the IL-2 fusion protein comprises an amino acid sequence described in **Table 9**, or a functional fragment thereof. In an embodiment, the IL-2 variant is encoded by a nucleic acid comprising a nucleotide sequence described herein, *e.g.*, in **Table 10**.

Without wishing to be bound by theory, it is believed that in an embodiment, the IL-2 fusion proteins described herein, which have reduced human CD25 and/or reduced human CD122/CD132

binding affinity relative to a IL-2 fusion protein comprising a wild-type human IL-2 or a reference IL-2 fusion protein, can have improved potency and/or selectivity for binding to and activating regulatory T cells (Tregs) than IL-2 fusion proteins comprising a wild-type human IL-2 or other IL-2 fusion protein.

5 In an embodiment, the IL-2 fusion protein has one or more (*e.g.*, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, or more) properties described herein, *e.g.*, different and/or improved properties, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein comprises one or more (*e.g.*, 2, 3, 4, 5, 6, 7, 8, 9, 10, or more) amino acid alterations (*e.g.*, substitutions) that provide different and/or improved properties, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has one or more (*e.g.*, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, or all) of the following different and/or improved properties (*e.g.*, as determined by an assay described herein), relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein:

- i) altered (*e.g.*, enhanced or increased) expression *in vitro* and/or *in vivo*;
- 15 ii) altered (*e.g.*, reduced or decreased) aggregation *in vitro* and/or *in vivo*;
- iii) altered (*e.g.*, enhanced or increased) stability *in vitro* and/or *in vivo*;
- iv) altered (*e.g.*, enhanced or increased) half-life *in vitro* and/or *in vivo*;
- v) altered (*e.g.*, reduced or decreased) turnover and/or clearance *in vivo*;
- vi) altered (*e.g.*, reduced or decreased) susceptibility to proteolysis *in vitro* and/or *in vivo*;
- 20 vii) altered (*e.g.*, enhanced or increased) resistance to proteolysis *in vitro* and/or *in vivo*;
- viii) altered (*e.g.*, reduced or decreased) binding capacity and/or binding affinity for human CD25 *in vitro* and/or *in vivo*;
- ix) altered (*e.g.*, reduced or decreased) binding capacity and/or binding affinity for human CD132 *in vitro* and/or *in vivo*;
- 25 x) altered (*e.g.*, reduced or decreased) binding capacity and/or binding affinity for the dimeric IL-2 receptor comprising human CD122 and human CD132 *in vitro* and/or *in vivo*;
- xi) altered (*e.g.*, enhanced, increased, reduced, decreased, and/or selective) binding to Tregs *in vitro* and/or *in vivo*;
- xii) altered (*e.g.*, enhanced, increased, reduced, decreased, and/or selective) activation of the IL-2 signaling pathway in Tregs *in vitro* and/or *in vivo*; or
- 30 xiii) altered (*e.g.*, enhanced, increased, reduced, decreased, and/or selective) ability to induce or promote Treg expansion, activity, survival, and/or proliferation *in vitro* and/or *in vivo*.

In an embodiment, the IL-2 fusion protein has altered (*e.g.*, enhanced or increased) expression *in vitro* and/or *in vivo*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has enhanced or increased expression (*e.g.*, in a bacterial or mammalian cell) relative to an IL-2 fusion protein comprising a wild-type IL-2. In an embodiment, the IL-2 fusion protein has enhanced or increased expression (*e.g.*,

in bacterial or mammalian cell) relative to a reference IL-2 fusion protein. In an embodiment, the expression of the IL-2 fusion protein is increased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the expression of the IL-2 fusion protein is increased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more. In an embodiment, the IL-2 fusion protein expresses at a higher or increased level *in vitro* and/or *in vivo*, *e.g.*, increased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more *e.g.*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein *e.g.*, as determined by an assay of protein concentration. In an embodiment, the IL-2 fusion protein expresses at a higher or increased level, *e.g.*, increased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein *e.g.*, as determined by an assay of protein concentration.

In an embodiment, the IL-2 fusion protein has altered (*e.g.*, reduced or decreased) aggregation *in vitro* and/or *in vivo*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has reduced or decreased aggregation relative to a wild type IL-2. In an embodiment, the IL-2 fusion protein has reduced or decreased aggregation relative to a reference IL-2 fusion protein. In an embodiment, the aggregation of the IL-2 fusion protein is decreased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the aggregation of the IL-2 fusion protein is decreased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more. In an embodiment, the IL-2 fusion protein aggregates at lower or decreased level *in vitro* and/or *in vivo*, *e.g.*, decreased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more *e.g.*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein *e.g.*, as determined by melting temperature analysis (*e.g.*, using fluorimetry), dynamic light scattering, and/or size-exclusion chromatography. In an embodiment, the IL-2 fusion protein aggregates at lower or decreased level, *e.g.*, decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein *e.g.*, as determined by melting

temperature analysis (*e.g.*, using fluorimetry), dynamic light scattering, and/or size-exclusion chromatography.

In an embodiment, the IL-2 fusion protein has altered (*e.g.*, enhanced or increased) stability *in vitro* and/or *in vivo*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has enhanced or increased stability relative to an IL-2 fusion protein comprising a wild-type IL-2. In an embodiment, the IL-2 fusion protein has enhanced or increased stability relative to a reference IL-2 fusion protein. In an embodiment, the stability of the IL-2 fusion protein is increased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the stability of the IL-2 fusion protein is increased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more. In an embodiment, the IL-2 fusion protein has enhanced or increased stability *in vitro* and/or *in vivo*, *e.g.*, increased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, increased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein, *e.g.*, as determined by yeast surface display, circular dichroism or related spectroscopic techniques, and/or melting temperature analysis (*e.g.*, using fluorimetry).

In an embodiment, the IL-2 fusion protein has altered (*e.g.*, enhanced or increased) half-life *in vitro* and/or *in vivo*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has enhanced or increased half-life relative to an IL-2 fusion protein comprising a wild-type IL-2. In an embodiment, the IL-2 fusion protein has enhanced or increased half-life relative to a reference IL-2 fusion protein. In an embodiment, the half-life of the IL-2 fusion protein is increased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the half-life of the IL-2 fusion protein is increased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more. In an embodiment, the IL-2 fusion protein has enhanced or increased half-life *in vitro* and/or *in vivo*, *e.g.*, increased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, greater than about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 fusion protein comprising a wild-

type IL-2 or a reference IL-2 fusion protein, *e.g.*, as determined by ELISA, flow cytometry, and/or mass spectrometry.

In an embodiment, the IL-2 fusion protein has altered (*e.g.*, reduced or decreased) turnover *in vitro* and/or *in vivo*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has reduced or decreased turnover relative to an IL-2 fusion protein comprising a wild-type IL-2. In an embodiment, the IL-2 fusion protein has reduced or decreased turnover relative to a reference IL-2 fusion protein. In an embodiment, the turnover of the IL-2 fusion protein is decreased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the turnover of the IL-2 fusion protein is decreased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, about 10-fold, or more. In an embodiment, the IL-2 fusion protein has a lower, reduced or decreased rate or level of turnover and/or clearance *in vivo*, *e.g.*, decreased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein, *e.g.*, as determined by ELISA, flow cytometry, and/or mass spectrometry.

In an embodiment, the IL-2 fusion protein provided by the disclosure comprise the property of having altered (*e.g.*, reduced or decreased) susceptibility to proteolysis *in vitro* and/or *in vivo*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has reduced or decreased susceptibility to proteolysis relative to IL-2 (*e.g.*, wild type human IL-2). In an embodiment, the IL-2 fusion protein has reduced or decreased susceptibility to proteolysis relative to a reference IL-2 fusion protein. In an embodiment, the susceptibility to proteolysis of the IL-2 fusion protein is decreased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the susceptibility to proteolysis of the IL-2 fusion protein is decreased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more.

In an embodiment, the IL-2 fusion protein has altered (*e.g.*, enhanced or increased) resistance to proteolysis *in vitro* and/or *in vivo*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has enhanced or increased resistance to proteolysis relative to an IL-2 fusion protein comprising a wild-type IL-2. In an embodiment, the IL-2 fusion protein has enhanced or increased resistance to proteolysis relative to a reference IL-2 fusion protein. In an embodiment, the resistance to proteolysis of the IL-2 fusion protein is increased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or

about 100%, or more. In an embodiment, the resistance to proteolysis of the IL-2 fusion protein is increased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more.

In an embodiment, the IL-2 fusion protein has altered (*e.g.*, reduced or decreased) binding capacity and/or binding affinity for human CD25 *in vitro* and/or *in vivo*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has reduced or decreased binding capacity and/or binding affinity for human CD25 relative to a wild-type human IL-2). In an embodiment, the IL-2 fusion protein has reduced or decreased binding capacity and/or binding affinity for human CD25 relative to a reference IL-2 fusion protein. In an embodiment, the binding capacity and/or binding affinity of the IL-2 fusion protein for human CD25 is decreased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the binding capacity and/or binding affinity of the IL-2 fusion protein for human CD25 is decreased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more. In an embodiment, the IL-2 fusion protein has reduced or decreased binding affinity for CD25 (*e.g.*, human CD25), *e.g.*, decreased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein *e.g.*, as determined by yeast surface display, surface plasmon resonance (*e.g.* Biacore) and/or bio-layer interferometry (*e.g.* Octet binding).

In an embodiment, the IL-2 fusion protein binds to CD25 (*e.g.*, human CD25) with low affinity, *e.g.*, with a dissociation constant (K_D) of about 5-500 pM, *e.g.*, about 5, about 10, about 15, about 20, about 25, about 30, about 35, about 40, about 45, about 50, about 55, about 60, about 65, about 70, about 75, about 80, about 85, about 90, about 95, about 100, about 105, about 110, about 115, about 120, about 125, about 130, about 135, about 140, about 145, about 150, about 200, about 250, about 300, about 350, about 400, about 450, or about 500 pM, or *e.g.*, about 10 to about 400 pM, about 20 to about 300 pM, about 50 to about 200 pM, about 100 to about 150 pM, about 5 to about 10 pM, about 10 to about 20 pM, about 20 to about 30 pM, or about 30 to about 40 pM, *e.g.*, about 40 to about 50 pM, about 50 to about 60 pM, about 60 to about 70 pM, about 70 to about 80 pM, about 80 to about 90 pM, about 90 to about 100 pM, about 100 to about 110 pM, about 110 to about 120 pM, about 120 to about 130 pM, about 130 to about 140 pM about 140 to about 150 pM, about 150 to about 200 pM, about 200 to about 250 pM, about 250 to about 300 pM, about 300 to about 350 pM, about 350 to about 400 pM, about 400 to about 500 pM, or *e.g.*, greater than about 5, about 10, about

15, about 20, about 25, about 30, about 35, about 40, about 45, about 50, about 55, about 60, about 65, about 70, about 75, about 80, about 85, about 90, about 95, about 100, about 105, about 110, about 115, about 120, about 125, about 130, about 135, about 140, about 145, about 150, about 200, about 250, about 300, about 350, about 400, about 450, or about 500 pM, *e.g.* as determined by yeast
 5 surface display, surface plasmon resonance (*e.g.* Biacore) and/or biolayer interferometry (*e.g.* Octet binding).

In an embodiment, the IL-2 fusion protein binds to CD25 (*e.g.*, human CD25) with low affinity, *e.g.*, with a dissociation constant (K_D) of about 0.1-10 nM, *e.g.*, about 0.1, about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1, about 1.5, about 2, about
 10 2.5, about 3, about 3.5, about 4, about 4.5, about 5, about 6, about 7, about 8, about 9, or about 10 nM, or *e.g.*, about 0.2 to about 5 nM, about 0.5 to about 2 nM, about 1 to 1.5 nM, about 0.1 to about 0.2 nM, about 0.2 to about 0.3 nM, about 0.3 to about 0.4 nM, or about 0.4 to about 0.5 nM, *e.g.*, about 0.5 to about 0.6 nM, about 0.6 to about 0.7 nM, about 0.7 to about 0.8 nM, about 0.8 to about 0.9 nM, about 0.9 to about 1 nM, about 1 to about 1.5 nM, about 1.5 to about 2 nM, about 2.5 to about 3 nM,
 15 about 3.5 to about 4 nM, about 4 to about 4.5 nM, about 4.5 to about 5 nM, about 5 to about 6 nM, about 6 to about 7 nM, about 7 to about 8 nM, about 8 to about 9 nM, or about 9 to about 10 nM, or *e.g.*, greater than about 0.1, about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, or about 10 nM, *e.g.*, as determined by surface plasmon resonance (*e.g.* Biacore) and/or bio-layer interferometry
 20 (*e.g.*, Octet binding).

In an embodiment, the IL-2 fusion protein has altered (*e.g.*, reduced or decreased) binding capacity and/or binding affinity for human CD132 *in vitro* and/or *in vivo*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has reduced or decreased binding capacity and/or binding affinity for human CD132
 25 relative to an IL-2 fusion protein comprising a wild-type IL-2. In an embodiment, the IL-2 fusion protein has reduced or decreased binding capacity and/or binding affinity for human CD132 relative to a reference IL-2 fusion protein. In an embodiment, the binding capacity and/or binding affinity of the IL-2 fusion protein for human CD132 is decreased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the binding capacity and/or
 30 binding affinity of the IL-2 fusion protein for human CD132 is decreased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more.

In an embodiment, the IL-2 fusion protein has altered (*e.g.*, reduced or decreased) binding capacity and/or binding affinity for the human dimeric IL-2 receptor comprising human CD122 and human CD132 *in vitro* and/or *in vivo*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or
 35 a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has reduced or decreased binding capacity and/or binding affinity for the human dimeric IL-2 receptor comprising human CD122 and human CD132 relative to an IL-2 fusion protein comprising a wild-type IL-2. In an

embodiment, the IL-2 fusion protein has reduced or decreased binding capacity and/or binding affinity for the human dimeric IL-2 receptor comprising human CD122 and human CD132 relative to a reference IL-2 fusion protein. In an embodiment, the binding capacity and/or binding affinity of the IL-2 fusion protein for the human dimeric IL-2 receptor comprising human CD122 and human CD132 is decreased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the binding capacity and/or binding affinity of the IL-2 fusion protein for the human dimeric IL-2 receptor comprising human CD122 and human CD132 is decreased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more.

In an embodiment, the IL-2 fusion protein has altered (*e.g.*, enhanced, increased, and/or selective) binding to Tregs *in vitro* and/or *in vivo*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has enhanced or increased binding to Tregs relative to an IL-2 fusion protein comprising a wild-type IL-2. In an embodiment, the IL-2 fusion protein has selective binding to Tregs relative to IL-2 (*e.g.*, wild type human IL-2). In an embodiment, the IL-2 fusion protein has enhanced or increased binding to Tregs relative to a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has selective binding to Tregs relative to a reference IL-2 fusion protein. In an embodiment, the binding to Tregs is increased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the binding to Tregs is increased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more.

In an embodiment, the IL-2 fusion protein has reduced or decreased binding affinity for CD122/CD132 heterodimer (*e.g.*, human CD122/CD132 heterodimer), *e.g.*, decreased by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein *e.g.*, as determined by yeast surface display, surface plasmon resonance (*e.g.* Biacore) and/or bio-layer interferometry (*e.g.* Octet binding).

In an embodiment, the IL-2 fusion protein binds to CD122/CD132 heterodimer (*e.g.*, human CD122/CD132 heterodimer) with low affinity, *e.g.*, with a dissociation constant (K_D) of about 0.2-20 nM, *e.g.*, about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1, about 1.1, about 1.2, about 1.3, about 1.4, about 1.5, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, about 10, about 11, about 12, about 13, about 14, about 15, about 16, about 17, about 18, or about 20 nM, or *e.g.*, about 0.5 to about 15 nM, about 1 to about 10 nM, about 2 to about

5 nM, about 0.2 to about 0.3 nM, about 0.3 to about 0.4 nM, about 0.4 to about 0.5 nM, about 0.5 to about 0.6 nM, about 0.6 to about 0.7 nM, about 0.7 to about 0.8 nM, about 0.8 to about 0.9 nM, about 0.9 to about 1 nM, about 1 to about 1.1 nM, about 1.1 to about 1.2 nM, about 1.2 to about 1.3 nM, about 1.3 to about 1.4 nM, about 1.4 to about 1.5 nM, about 1.5 to about 2 nM, about 2 to about 3 nM, about 3 to about 4 nM, about 4 to about 5 nM, about 5 to about 6 nM, about 6 to about 7 nM, about 7 to about 8 nM, about 8 to about 9 nM, about 9 to about 10 nM, about 10 to about 11 nM, about 11 to about 12 nM, about 12 to about 13 nM, about 13 to about 14 nM, about 14 to about 15 nM, about 15 to about 16 nM, about 16 to about 17 nM, about 17 to about 18 nM, about 18 to about 19 nM, or about 19 to about 20 nM, or *e.g.*, greater than about 0.2, about 0.3, about 0.4, about 0.5, about 0.6, about 0.7, about 0.8, about 0.9, about 1, about 1.1, about 1.2, about 1.3, about 1.4, about 1.5, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, about 10, about 11, about 12, about 13, about 14, about 15, about 16, about 17, about 18, or about 20 nM, *e.g.*, as determined by yeast surface display.

In an embodiment, the IL-2 fusion protein binds to CD122/CD132 heterodimer (*e.g.*, human CD122/CD132 heterodimer) with low affinity, *e.g.*, with a dissociation constant (K_D) of about 0.2-300 nM, *e.g.*, about 0.2 nM, about 0.5 nM, about 1 nM, about 2 nM, about 5 nM, about 10 nM, about 15 nM, about 20 nM, about 25 nM, about 30 nM, about 40 nM, about 50 nM, about 60 nM, about 70 nM, about 80 nM, about 90 nM, about 100 nM, about 110 nM, about 120 nM, about 130 nM, about 140 nM, about 150 nM, about 160 nM, about 170 nM, about 180 nM, about 190 nM, about 200 nM, about 210 nM, about 220 nM, about 230 nM, about 240 nM, about 250 nM, about 260 nM, about 270 nM, about 280 nM, about 290 nM, or about 300 nM, or *e.g.*, about 0.5 to about 15 nM, about 1 to about 10 nM, about 2 to about 5 nM, about 0.2 nM to about 0.5 nM, about 0.5 nM to about 1 nM, about 1 to about 2 nM, about 2 nM to about 5 nM, about 5 nM to about 10 nM, about 10 nM to about 15 nM, about 15 nM to about 20 nM, about 20 nM to about 25 nM, about 25 to about 30 nM, about 30 nM to about 40 nM, about 40 nM to about 50 nM, about 50 to about 60 nM, about 60 to about 70 nM, about 70 nM to about 80 nM, about 80 nM to about 90 nM, about 90 nM to about 100 nM, about 100 nM to about 110 nM, about 110 nM to about 120 nM, about 120 nM to about 130 nM, about 130 nM to about 140 nM, about 140 nM to about 150 nM, about 150 nM to about 160 nM, about 160 nM to about 170 nM, about 170 nM to about 180 nM, about 180 nM to about 190 nM, about 190 nM to about 200 nM, about 200 nM to about 210 nM, about 210 nM to about 220 nM, about 220 nM to about 230 nM, about 230 nM to about 240 nM, about 240 nM to about 250 nM, about 250 nM to about 260 nM, about 260 nM to about 270 nM, about 270 nM to about 280 nM, about 280 nM to about 290 nM, or about 290 nM to about 300 nM, or *e.g.*, greater than about 0.2, about 0.5, about 1, about 2, about 5, about 10, about 15, about 20 nM, about 25 nM, about 30 nM, about 40 nM, about 50 nM, about 60 nM, about 70 nM, about 80 nM, about 90 nM, about 100 nM, about 110 nM, about 120 nM, about 130 nM, about 140 nM, about 150 nM, about 160 nM, about 170 nM, about 180 nM, about 190 nM, about 200 nM, about 210 nM, about 220 nM, about 230 nM, about 240 nM, about 250 nM, about 260 nM, about 270 nM, about 280 nM, about 290 nM, or greater than about 300 nM, *e.g.*, as

determined by surface plasmon resonance (*e.g.* Biacore) and/or biolayer interferometry (*e.g.* Octet binding).

In an embodiment, the IL-2 fusion protein has altered (*e.g.*, enhanced, increased, and/or selective) binding to Tregs *in vitro* and/or *in vivo*, relative to an IL-2 fusion protein comprising wild-type IL-2 or a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has enhanced or increased binding to Tregs relative to an IL-2 fusion protein comprising wild-type IL-2. In an embodiment, the IL-2 fusion protein has selective binding to Tregs relative to IL-2 (*e.g.*, wild type human IL-2). In an embodiment, the IL-2 fusion protein has enhanced or increased binding to Tregs relative to a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has selective binding to Tregs relative to a reference IL-2 fusion protein. In an embodiment, the binding to Tregs is increased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the binding to Tregs is increased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more.

In an embodiment, the IL-2 fusion protein has altered (*e.g.*, enhanced, increased, and/or selective) activation of the IL-2 signaling pathway in Tregs *in vitro* and/or *in vivo*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has enhanced or increased activation of the IL-2 signaling pathway in Tregs relative to an IL-2 fusion protein comprising a wild-type IL-2. In an embodiment, the IL-2 fusion protein has selective activation of the IL-2 signaling pathway in Tregs relative to an IL-2 fusion protein comprising a wild-type IL-2. In an embodiment, the IL-2 fusion protein has enhanced or increased activation of the IL-2 signaling pathway in Tregs relative to a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has selective activation of the IL-2 signaling pathway in Tregs relative to a reference IL-2 fusion protein. In an embodiment, the activation of the IL-2 signaling pathway in Tregs is increased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the activation of the IL-2 signaling pathway in Tregs is increased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more.

In an embodiment, the IL-2 fusion protein selectively activates IL-2 signaling in T regulatory cells *in vitro* and/or *in vivo*, *e.g.*, having an T helper EC50/Treg EC50 ratio greater than about 1, about 2, about 3, about 4, about 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000, 1500, 2000, 2500, or about 3000 or more relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein *e.g.*, as determined flow cytometry.

In an embodiment, the IL-2 fusion protein selectively activates IL-2 signaling in T regulatory cells *in vitro* and/or *in vivo*, *e.g.*, having an NK cell EC50/Treg EC50 ratio greater than *e.g.*, about 1, about 2, about 3, about 4, about 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24,

25, 26, 27, 28, 29, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000, 1500, 2000, 2500, or about 3000 or more, or *e.g.*, greater than 1 and about 1 to 2, about 2 to 3, about 3 to 4, about 4 to 5, greater than 1 and about 1 to 10, greater than 1 and about 1 to 20, greater than 1 and about 1 to 30, greater than 1 and about 1 to 40, greater than 1 and about 1 to 50, about 2 to 10, about 2 to 20, about 2 to 30, about 2 to 40, 2 to 50, about 5 to 10, about 5 to 20, about 5 to 30, about 5 to 40, about 5 to 50, about 10 to 20, about 10 to 30, about 10 to 40, about 10 to 50, about 20 to 40, about 20 to 50, about 50 to 100, about 100 to 200, about 200 to 500, about 500 to 1000, about 1000 to 2000, or about 1000 to 3000, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein *e.g.*, as determined flow cytometry.

In an embodiment, the IL-2 fusion protein has altered (*e.g.*, enhanced, increased, and/or selective) ability to induce or promote Treg expansion, activity, survival, and/or proliferation *in vitro* and/or *in vivo*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has enhanced or increased ability to induce or promote Treg expansion, activity, survival, and/or proliferation relative to an IL-2 fusion protein comprising a wild-type IL-2. In an embodiment, the IL-2 fusion protein has selective ability to induce or promote Treg expansion, activity, survival, and/or proliferation relative to an IL-2 fusion protein comprising a wild-type IL-2. In an embodiment, the IL-2 fusion protein has enhanced or increased ability to induce or promote Treg expansion, activity, survival, and/or proliferation relative to a reference IL-2 fusion protein. In an embodiment, the IL-2 fusion protein has selective ability to induce or promote Treg expansion, activity, survival, and/or proliferation relative to a reference IL-2 fusion protein. In an embodiment, the ability to induce or promote Treg expansion, activity, survival, and/or proliferation is increased by about 1%, 5%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, or about 100%, or more. In an embodiment, the ability to induce or promote Treg expansion, activity, survival, and/or proliferation is increased by about 0.5-fold, 1-fold, 2-fold, 3-fold, 4-fold, 5-fold, 6-fold, 7-fold, 8-fold, 9-fold, or about 10-fold, or more.

In an embodiment, the IL-2 fusion protein has enhanced or increased potency and/or ability to induce or promote T regulatory cell activity, *e.g.*, having an EC50 for Tregs that is lower by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 100% or more, or *e.g.*, decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold or more *e.g.*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein *e.g.*, as determined flow cytometry.

In an embodiment, the IL-2 fusion protein has reduced or decreased potency and/or ability to induce or promote T regulatory cell activity, *e.g.*, having an EC50 for Tregs that is higher by about 1%, about 2%, about 3%, about 4%, about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%,
 5 about 75%, about 80%, about 85%, about 90%, about 95%, or about 100% or more, or *e.g.*, decreased by about 0.5-fold, about 1-fold, about 1.5-fold, about 2-fold, about 2.5-fold, about 3-fold, about 3.5-fold, about 4-fold, about 4.5-fold, about 5-fold, about 5.5-fold, about 6-fold, about 6.5-fold, about 7-fold, about 7.5-fold, about 8-fold, about 8.5-fold, about 9-fold, about 9.5-fold, about 10-fold, about 50-fold, about 100-fold, about 200-fold, about 500-fold, about 1000-fold, about 2000-fold, about
 10 5000-fold, about 10,000, about 15,000-fold, or about 20,000-fold or more *e.g.*, relative to an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein *e.g.*, as determined flow cytometry.

In an embodiment, the T helper cell described herein is a CD45+CD3+CD4+Foxp3- cell, *e.g.*, determined by flow cytometry. In an embodiment, the Treg described herein is
 15 CD45+CD3+CD4+Foxp3+ cell, *e.g.*, determined by flow cytometry. In an embodiment, the NK cell described herein is a CD45+CD3- cell that is CD56+ and/or CD16+, *e.g.*, determined by flow cytometry. In an embodiment, the NK cell described herein is a CD45+CD3-CD56+ cell, *e.g.*, determined by flow cytometry.

In an embodiment, the IL-2 fusion protein has one or more of the same, or substantially the same, structural and/or functional properties, as an IL-2 fusion protein comprising a wild-type IL-2 or a reference IL-2 fusion protein.
 20

In an embodiment, the reference IL-2 fusion protein comprises an amino acid sequence that has about 75%, 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity to an IL-2 fusion protein described herein. In an embodiment, the reference IL-2
 25 fusion protein comprises an IL-2 variant comprising the amino acid sequence of SEQ ID NO: 57. In an embodiment, the IL-2 fusion protein comprises an amino acid sequence that is at least 80%, 85%, 90%, 95%, or 98% identical to the amino acid sequence of SEQ ID NO: 57 and comprises one or more (2, 3, 4, 5, 6, 7, 8, 9, 10, or more) amino acid alterations (*e.g.*, substitutions) described herein.

In an embodiment, the IL-2 fusion protein comprises an IL-2 polypeptide (*e.g.*, a human IL-2 polypeptide) described herein. In an embodiment, the IL-2 fusion protein is encoded by a nucleic acid comprising a nucleotide sequence described herein.
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In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at one or more (*e.g.*, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or all) of positions in IL-2, as described herein. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*,
 35 substitution) at one or more (*e.g.*, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or all) of positions chosen from T3, H16, I28, K35, R38, F42, E68, V69, Q74, D84, S87, N88, I92, C125, or Q126 in IL-2.

- In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position T3 in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position H16 in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position I28 in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position K35 in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position R38 in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position F42 in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position E68 in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position V69 in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position Q74 in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position D84 in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position S87 in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position N88 in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position I92 in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position C125 in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position Q126 in IL-2.
- In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, or both, in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at positions V69 and Q74 in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution V69A in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution Q74P in IL-2.
- In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position H16, I92, D84, or a combination thereof, in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position H16, optionally wherein the amino acid substitution is H16N, H16L, or H16D, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution H16N in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution H16L in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution H16D in IL-2.
- In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position at I92, optionally wherein the amino acid substitution is I92S, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution I92S in IL-2.
- In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position D84, optionally wherein the amino acid substitution is D84V, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution is D84V in IL-2.

- In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position K35, R38, F42, E68, or a combination thereof, in IL-2. In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position K35, optionally wherein the amino acid substitution is K35E, in IL-2. In an embodiment, IL-2 fusion
- 5 protein comprises the amino acid substitution K35E in IL-2.
- In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position R38, optionally wherein the amino acid substitution is R38E, R38N or R38Q, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution R38N in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution R38Q in IL-2.
- 10 In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position F42, optionally wherein the amino acid substitution is F42K or F42Q, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution F42K in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution F42Q in IL-2.
- In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution): (i) at (a) positions V69 and Q74, (b) position K35, or (c) positions V69, Q74, and K35; and (ii) at one, two, or all of positions H16, I92, or D84, in IL-2. In an embodiment, the IL-2 fusion
- 15 protein further comprises an amino acid alteration (*e.g.*, substitution) at one, two, or all of positions R38, F42, or E68, in IL-2.
- In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution): (i) at (a) positions V69 and Q74, (b) position K35, or (c) positions V69, Q74, and K35; and (ii) at (a) one, two, or all of positions H16, I92, or D84; or (b) one, two, or all of positions R38,
- 20 F42, or E68, in IL-2.
- In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution): (i) at (a) positions V69 and Q74, (b) position K35, or (c) positions V69, Q74, and K35; and (ii) at (a) one, two, or all of positions H16, I92, or D84; and (b) one, two, or all of positions R38,
- 25 F42, or E68, in IL-2.
- In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and H16, optionally wherein the amino acid substitution is V69A, Q74P, and H16N or H16L, respectively, in IL-2. In an embodiment, the IL-2 fusion protein
- 30 comprises the amino acid substitutions V69A, Q74P, and H16N or H16L, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions V69A, Q74P, and H16N, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions V69A, Q74P, and H16L, in IL-2.
- In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and I92, optionally wherein the amino acid substitution is V69A, Q74P, and I92S, respectively, in IL-2. In an embodiment, the IL-2 fusion protein comprises the
- 35 amino acid substitutions V69A, Q74P, and I92S, in IL-2.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and D84, optionally wherein the amino acid substitution is V69A, Q74P, and D84V, respectively, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions V69A, Q74P, and D84V, in IL-2.

5 In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and R38, optionally wherein the amino acid substitution is V69A, Q74P, and R38Q, respectively, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions V69A, Q74P, and R38Q, in IL-2.

10 In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and F42, optionally wherein the amino acid substitution is V69A, Q74P, and F42Q, respectively, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions V69A, Q74P, and F42Q, in IL-2.

15 In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and R38, optionally wherein the amino acid substitution is V69A, Q74P, and R38N, respectively, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions V69A, Q74P, and R38N, in IL-2.

20 In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and R38, optionally wherein the amino acid substitution is V69A, Q74P, and R38E, respectively, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution V69A, Q74P, and R38E, in IL-2.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, K35, and H16, optionally wherein the amino acid substitution is V69A, Q74P, K35E, and H16N, respectively, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions V69A, Q74P, K35E, and H16N, in IL-2.

25 In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, K35, H16, and R38, optionally wherein the amino acid substitution is V69A, Q74P, K35E, H16N, and R38N, respectively, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions V69A, Q74P, K35E, H16N, and R38N, in IL-2.

30 In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, H16, and R38, optionally wherein the amino acid substitution is V69A, Q74P, H16N, and R38N or R38Q, respectively, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions V69A, Q74P, H16N, and R38N or R38Q, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions V69A, Q74P, H16N, and R38N, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions
35 V69A, Q74P, H16N, and R38Q, in IL-2.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position I28, E68, S87, N88, Q126, or a combination thereof, in IL-2.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position I28, optionally wherein the amino acid substitution is I28T or I28F, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution I28T in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution I28F in IL-2.

5 In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position E68, optionally wherein the amino acid substitution is E68Q or E68N, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution E68Q in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution E68N in IL-2.

10 In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position S87, optionally wherein the amino acid substitution is S87R, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution S87R in IL-2.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position N88, optionally wherein the amino acid substitution is N88S, N88L, or N88D, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution N88S, N88L, or N88D, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution N88S in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution N88L in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution N88D in IL-2.

20 In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position Q126, optionally wherein the amino acid substitution is Q126T, Q126K, or Q126R, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution Q126T, Q126K, or Q126R, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution Q126T, Q126K, or Q126R, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution Q126T in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution Q126K in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution Q126R in IL-2.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position C125 in IL-2, optionally wherein the amino acid substitution is C125S. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution C125S in IL-2.

30 In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position T3 in IL-2, optionally wherein the amino acid substitution is T3A. In an embodiment, the IL-2 fusion protein comprises the amino acid substitution T3A in IL-2.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position V69, Q74, and C125, in IL-2, optionally wherein the amino acid substitution is V69A, Q74P, and C125S, respectively. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions V69A, Q74P, and C125S, in IL-2.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position T3, H16, I92, in IL-2, or a combination thereof, optionally wherein the amino acid substitution is T3A, H16N, and I92S, in IL-2, respectively.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position H16, V69, Q74, and C125, in IL-2, optionally wherein the amino acid substitution is H16N, V69A, Q74P, and C125S, in IL-2, respectively. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions H16N, V69A, Q74P, and C125S in IL-2.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position H16, V69, Q74, and C125, in IL-2, optionally wherein the amino acid substitution is H16L, V69A, Q74P, and C125S, in IL-2, respectively. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions H16L, V69A, Q74P, and C125S, in IL-2.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position H16, V69, Q74, I92, and C125, in IL-2, optionally wherein the amino acid substitution is H16L, V69A, Q74P, I92S, and C125S, in IL-2, respectively. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions H16L, V69A, Q74P, I92S, and C125S, in IL-2.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position T3, V69, Q74, and C125, in IL-2, optionally wherein the amino acid substitution is T3A, V69A, Q74P, and C125S, in IL-2, respectively. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions T3A, V69A, Q74P, and C125S, in IL-2.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position T3, H16, V69, Q74, and C125, in IL-2, optionally wherein the amino acid substitution is T3A, H16N or H16L, V69A, Q74P, and C125S, in IL-2, respectively. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions T3A, H16N, V69A, Q74P, and C125S. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions T3A, H16L, V69A, Q74P, and C125S, in IL-2.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position T3, V69, Q74, I92, and C125, in IL-2, optionally wherein the amino acid substitution is T3A, V69A, Q74P, I92S, and C125S, in IL-2, respectively. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions T3A, V69A, Q74P, I92S, and C125S, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions T3A, V69A, Q74P, I92S, and C125S, in IL-2.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position H16, K35, V69 and Q74, optionally wherein the amino acid substitution is H16L, K35E, V69A, and Q74P, respectively, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions H16L, K35E, V69A, and Q74P, in IL-2.

In an embodiment, the IL-2 fusion protein comprises an amino acid alteration (*e.g.*, substitution) at position H16, R38, V69A, and Q74P, optionally wherein the amino acid substitution is H16L, R38Q, V69A, and Q74P, respectively, in IL-2. In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions H16L, R38Q, V69A, and Q74P, in IL-2.

5 In an embodiment, the IL-2 fusion protein comprises the amino acid substitutions H16L, V69A, Q74P, and C125S, in IL-2.

Without wishing to be bound by theory, it is believed that in an embodiment, an IL-2 fusion protein comprising the amino acid substitutions H16L, V69A, Q74P, and C125S, can have at least one or more of the following advantageous properties: (i) has reduced binding affinity for CD122 and/or
 10 CD132, which increases the potency and selectivity of the IL-2 agent for regulatory T cells (Treg) compared to other T cell types; (ii) is significantly stable, *e.g.*, due to the presence of stabilizing V69A and Q74P mutations; (iii) has reduced or decreased binding capacity and/or binding affinity for CD25, which improves the lifetime of the IL-2 agent; (iv) does not substantially promote expansion, activation, survival, and/or proliferation of T effector cells and/or natural killer (NK) cells *in vitro*
 15 and/or *in vivo*; and/or (v) has reduced incorrect disulfide pairing and improved stability, *e.g.*, due to the presence of the C125S mutation. In an embodiment, an IL-2 agent comprising the H16L mutation has reduced binding affinity for CD122 and/or CD132 and/or increased potency and selectivity for Treg over other T cell types, compared to an IL-2 agent comprising other H16 mutations. These properties make an IL-2 variant comprising the amino acid substitutions H16L, V69A, Q74P, and
 20 C125S particularly suitable for treating disorders and conditions arising from abnormal immune responses, such as autoimmune diseases.

Thus, in an embodiment, an IL-2 fusion protein comprising amino acid substitutions H16L, V69A, Q74P, and C125S, has *inter alia* one or more (*e.g.*, 2, 3, 4, 5, 6, 7, or all) of the following properties relative to a wild-type IL-2 or a reference IL-2 variant that does not comprise the amino
 25 acid substitutions: (i) enhanced or increased stability *in vitro* or *in vivo*; (ii) reduced or decreased binding capacity and/or binding affinity for human CD122 *in vitro* and/or *in vivo*; (iii) reduced or decreased binding capacity and/or binding affinity for human CD132 *in vitro* and/or *in vivo*; (iv) reduced or decreased affinity of the IL-2 variant for the heterodimeric IL-2 receptor composed of human CD122 and human CD132 (*i.e.* human CD122/CD132 heterodimer) *in vitro* and/or *in vivo*; (v)
 30 reduced or decreased or substantially unchanged binding capacity and/or binding affinity for human CD25 *in vitro* and/or *in vivo*; (vi) selective binding to regulatory T cells (*e.g.* Foxp3⁺ T cells); (vii) selective activation of the IL-2 signaling pathway in T regulatory cells (Tregs) *in vitro* or *in vivo*; or (viii) enhanced or increased ability to induce or promote Treg expansion, activity, survival and/or proliferation.

35 In an embodiment, the IL-2 fusion protein comprises an IL-2 variant comprising an amino acid sequence chosen from: SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID

NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 1000, SEQ ID NO: 1001, SEQ ID NO: 1002, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the IL-2 fusion protein comprises an IL-2 variant comprising the amino acid sequence of SEQ ID NO: 4, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the IL-2 fusion protein comprises an IL-2 variant comprising the amino acid sequence of SEQ ID NO: 5, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ ID NO: 11, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ ID NO: 1000, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ ID NO: 1001, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ ID NO: 1002, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of any of SEQ ID NOs: 4, 5, 11, 1000, 1001, or 1002, or a functional fragment thereof. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ ID NO: 4 or 5, or a functional fragment thereof. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ ID NO: 4, or a functional fragment thereof. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ ID NO: 5, or a functional fragment thereof. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ ID NO: 11, or a functional fragment

thereof. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ ID NO: 1000, or a functional fragment thereof. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ ID NO: 1001, or a functional fragment thereof. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ ID NO: 1002, or a functional fragment thereof.

Without wishing to be bound by theory, it is believed that in an embodiment, an IL-2 fusion protein comprising the amino acid sequence of SEQ ID NO: 5, or a functional fragment thereof, can have at least one or more of the following advantageous properties: (i) has reduced binding affinity for CD122 and/or CD132, which increases the potency and selectivity of the IL-2 agent for regulatory T cells (Treg) compared to other T cell types; (ii) is significantly stable, *e.g.*, due to the presence of stabilizing V69A and Q74P mutations; (iii) has reduced or decreased binding capacity and/or binding affinity for CD25, which improves the lifetime of the IL-2 agent; (iv) does not substantially promote expansion, activation, survival, and/or proliferation of T effector cells and/or natural killer (NK) cells *in vitro* and/or *in vivo*; and/or (v) has reduced incorrect disulfide pairing and improved stability, *e.g.*, due to the presence of the C125S mutation. In an embodiment, an IL-2 agent comprising the H16L mutation has reduced binding affinity for CD122 and/or CD132 and/or increased potency and selectivity for Treg over other T cell types, compared to an IL-2 agent comprising other H16 mutations. These properties make an IL-2 fusion protein comprising the amino acid sequence of SEQ ID NO: 5 particularly suitable for treating disorders and conditions arising from abnormal immune responses, such as autoimmune diseases.

Thus, in an embodiment, an IL-2 fusion protein comprising the amino acid sequence SEQ ID NO: 5, or a functional fragment thereof, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto, has *inter alia* one or more (*e.g.*, 2, 3, 4, 5, 6, 7, or all) of the following properties relative to a wild-type IL-2 or a reference IL-2 fusion protein that does not comprise the amino acid substitutions: (i) enhanced or increased stability *in vitro* or *in vivo*; (ii) reduced or decreased binding capacity and/or binding affinity for human CD122 *in vitro* and/or *in vivo*; (iii) reduced or decreased binding capacity and/or binding affinity for human CD132 *in vitro* and/or *in vivo*; (iv) reduced or decreased affinity of the IL-2 fusion protein for the heterodimeric IL-2 receptor composed of human CD122 and human CD132 (*i.e.* human CD122/CD132 heterodimer) *in vitro* and/or *in vivo*; (v) reduced or decreased or substantially unchanged binding capacity and/or binding affinity for human CD25 *in vitro* and/or *in vivo*; (vi) selective binding to regulatory T cells (*e.g.* Foxp3⁺ T cells); (vii) selective activation of the IL-2 signaling pathway in T regulatory cells (Tregs) *in vitro* or *in vivo*; or (viii) enhanced or increased ability to induce or promote Treg expansion, activity, survival and/or proliferation.

In an embodiment, the IL-2 fusion proteins described herein comprise an Fc region, *e.g.* an Fc region having one or more mutations described herein, and/or having one or more structural or

functional properties described herein. Without wishing to be bound by theory, it is believed that in an embodiment, the Fc regions described herein can reduce (*e.g.*, prevent) renal clearance and/or extend half-life of the IL-2 agents (*e.g.*, via FcRn).

As used herein, the term “fusion protein” refers to a protein, comprising two or more protein or peptide components. The two or more protein or peptide components can be obtained from different sources or encoded by different genes. A fusion protein is sometimes also referred to as a chimeric protein. An Fc fusion protein (also known as Fc chimeric fusion protein, Fc-Ig, Ig-based chimeric fusion protein, or Fc-tag protein) can include an Fc region of an immunoglobulin (*e.g.*, an Fc region described herein) linked (*e.g.*, fused) to a protein or peptide. The Fc region can be linked (*e.g.*, fused genetically) to the protein or peptide directly, or indirectly, *e.g.*, through a linker. In an embodiment, the Fc region is derived from the Fc region of IgG, *e.g.*, human IgG, *e.g.*, IgG1, IgG2, IgG3, or IgG4. In an embodiment, the Fc region is derived from the Fc region of IgG1, *e.g.*, human IgG1.

An IL-2 fusion protein can include an IL-2 variant (*e.g.*, an IL-2 variant described herein), or a functional fragment thereof, linked (*e.g.*, fused) to a protein or peptide. In an embodiment, the IL-2 fusion protein is an IL-2-Fc fusion protein, *e.g.*, further comprising an Fc region of an immunoglobulin (*e.g.*, an Fc region described herein) linked (*e.g.*, fused) to the IL-2 polypeptide (*e.g.*, an IL-2 variant described herein) or a functional fragment thereof. In an embodiment, the IL-2 fusion protein is not an IL-2-Fc fusion protein, *e.g.*, an IL-2 fusion variant described herein, or a functional fragment thereof, is linked (*e.g.*, fused) to a protein or peptide other than an Fc region of IgG, *e.g.*, human IgG, *e.g.*, IgG1, IgG2, IgG3, or IgG4.

In an embodiment, the IL-2 fusion protein comprises an amino acid sequence chosen from: SEQ ID NO: 56, SEQ ID NO: 57, SEQ ID NO: 58, SEQ ID NO: 59, SEQ ID NO: 60, SEQ ID NO: 61, SEQ ID NO: 62, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 66, SEQ ID NO: 67, SEQ ID NO: 68, SEQ ID NO: 69, SEQ ID NO: 70, SEQ ID NO: 71, SEQ ID NO: 72, SEQ ID NO: 73, SEQ ID NO: 74, SEQ ID NO: 75, SEQ ID NO: 76, SEQ ID NO: 77, SEQ ID NO: 78, SEQ ID NO: 79, SEQ ID NO: 80, SEQ ID NO: 81, SEQ ID NO: 82, SEQ ID NO: 83, SEQ ID NO: 84, SEQ ID NO: 85, SEQ ID NO: 86, SEQ ID NO: 87, SEQ ID NO: 88, SEQ ID NO: 89, SEQ ID NO: 90, SEQ ID NO: 91, SEQ ID NO: 92, SEQ ID NO: 93, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the IL-2 fusion protein comprises an amino acid sequence chosen from: SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ

ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or
 5 more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the IL-2 fusion protein comprises an amino acid sequence chosen from: SEQ ID NO: 132, SEQ ID NO: 133, SEQ ID NO: 134, SEQ ID NO: 135, SEQ ID NO: 136, SEQ ID NO: 137, SEQ ID NO: 138, SEQ ID NO: 139, SEQ ID NO: 140, SEQ ID NO: 141, SEQ ID NO: 142,
 10 SEQ ID NO: 143, SEQ ID NO: 144, SEQ ID NO: 145, SEQ ID NO: 146, SEQ ID NO: 147, SEQ ID NO: 148, SEQ ID NO: 149, SEQ ID NO: 150, SEQ ID NO: 151, SEQ ID NO: 152, SEQ ID NO: 153, SEQ ID NO: 154, SEQ ID NO: 155, SEQ ID NO: 156, SEQ ID NO: 157, SEQ ID NO: 158, SEQ ID NO: 159, SEQ ID NO: 160, SEQ ID NO: 161, SEQ ID NO: 162, SEQ ID NO: 163, SEQ ID NO: 164, SEQ ID NO: 165, SEQ ID NO: 166, SEQ ID NO: 167, SEQ ID NO: 168, or SEQ ID NO: 169, or an
 15 amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the IL-2 fusion protein comprises an amino acid sequence chosen from: SEQ ID NO: 170, SEQ ID NO: 171, SEQ ID NO: 172, SEQ ID NO: 173, SEQ ID NO: 174, SEQ ID NO: 175, SEQ ID NO: 176, SEQ ID NO: 177, SEQ ID NO: 178, SEQ ID NO: 179, SEQ ID NO: 180,
 20 SEQ ID NO: 181, SEQ ID NO: 182, SEQ ID NO: 183, SEQ ID NO: 184, SEQ ID NO: 185, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, or SEQ ID NO: 207, or an
 25 amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the IL-2 fusion protein comprises an amino acid sequence chosen from: SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218,
 30 SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 228, SEQ ID NO: 229, SEQ ID NO: 230, SEQ ID NO: 231, SEQ ID NO: 232, SEQ ID NO: 233, SEQ ID NO: 234, SEQ ID NO: 235, SEQ ID NO: 236, SEQ ID NO: 237, SEQ ID NO: 238, SEQ ID NO: 239, SEQ ID NO: 240,
 35 SEQ ID NO: 241, SEQ ID NO: 242, SEQ ID NO: 243, SEQ ID NO: 244, or SEQ ID NO: 245, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%,

99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the IL-2 fusion protein comprises an amino acid sequence chosen from:
SEQ ID NO: 246, SEQ ID NO: 247, SEQ ID NO: 248, SEQ ID NO: 249, SEQ ID NO: 250, SEQ ID
5 NO: 251, SEQ ID NO: 252, SEQ ID NO: 253, SEQ ID NO: 254, SEQ ID NO: 255, SEQ ID NO: 256,
SEQ ID NO: 257, SEQ ID NO: 258, SEQ ID NO: 259, SEQ ID NO: 260, SEQ ID NO: 261, SEQ ID
NO: 262, SEQ ID NO: 263, SEQ ID NO: 264, SEQ ID NO: 265, SEQ ID NO: 266, SEQ ID NO: 267,
SEQ ID NO: 268, SEQ ID NO: 269, SEQ ID NO: 270, SEQ ID NO: 271, SEQ ID NO: 272, SEQ ID
10 NO: 273, SEQ ID NO: 274, SEQ ID NO: 275, SEQ ID NO: 276, SEQ ID NO: 277, SEQ ID NO: 278,
SEQ ID NO: 279, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, or SEQ ID NO: 283, or an
amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%,
99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,
12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the IL-2 fusion protein comprises an amino acid sequence chosen from:
15 SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID
NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294,
SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID
NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305,
SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID
20 NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316,
SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, or SEQ ID NO: 321, or an
amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%,
99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,
12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

25 In an embodiment, the IL-2 fusion protein comprises an amino acid sequence chosen from:
SEQ ID NO: 322, SEQ ID NO: 323, SEQ ID NO: 324, SEQ ID NO: 325, SEQ ID NO: 326, SEQ ID
NO: 327, SEQ ID NO: 328, SEQ ID NO: 329, SEQ ID NO: 330, SEQ ID NO: 331, SEQ ID NO: 332,
SEQ ID NO: 333, SEQ ID NO: 334, SEQ ID NO: 335, SEQ ID NO: 336, SEQ ID NO: 337, SEQ ID
NO: 338, SEQ ID NO: 339, SEQ ID NO: 340, SEQ ID NO: 341, SEQ ID NO: 342, SEQ ID NO: 343,
30 SEQ ID NO: 344, SEQ ID NO: 345, SEQ ID NO: 346, SEQ ID NO: 347, SEQ ID NO: 348, SEQ ID
NO: 349, SEQ ID NO: 350, SEQ ID NO: 351, SEQ ID NO: 352, SEQ ID NO: 353, SEQ ID NO: 354,
SEQ ID NO: 355, SEQ ID NO: 356, SEQ ID NO: 357, SEQ ID NO: 358, or SEQ ID NO: 359, or an
amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%,
99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,
35 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the IL-2 fusion protein comprises an amino acid sequence chosen from:
1004, SEQ ID NO: 1005, SEQ ID NO: 1006, SEQ ID NO: 1007, SEQ ID NO: 1008, SEQ ID NO:

1009 or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ ID NO: 1004, or an amino acid sequence with at least

5 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ ID NO: 1005, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6,

10 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ ID NO: 1006, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ

15 ID NO: 1007, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto. In an embodiment, the IL-2 fusion protein comprises the amino acid sequence of SEQ ID NO: 1008, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity

20 thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the IL-2 agent comprises the amino acid sequence of any of SEQ ID NOs: 1004-1009, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1007 or 1008, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1004, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1005, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1006, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1007, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1008, or a functional fragment thereof. In an embodiment, the IL-2 agent comprises the amino acid sequence of SEQ ID NO: 1009, or a functional fragment thereof.

Without wishing to be bound by theory, it is also believed that in an embodiment, an IL-2 fusion protein comprising the amino acid sequence of SEQ ID NO: 1008, or a functional fragment thereof, can have at least one or more of the following advantageous properties: (i) has reduced

25 binding affinity for CD122 and/or CD132, which increases the potency and selectivity of the IL-2 agent for regulatory T cells (Treg) compared to other T cell types; (ii) is significantly stable, *e.g.*, due

to the presence of stabilizing V69A and Q74P mutations; (iii) has reduced or decreased binding capacity and/or binding affinity for CD25, which improves the lifetime of the IL-2 agent; (iv) does not substantially promote expansion, activation, survival, and/or proliferation of T effector cells and/or natural killer (NK) cells *in vitro* and/or *in vivo*; (v) has reduced incorrect disulfide pairing and improved stability, *e.g.*, due to the presence of the C125S mutation; and/or (vi) has reduced effector function, *e.g.*, by reduced Fc glycosylation due to the N297G mutation in the Fc region. In an embodiment, an IL-2 agent comprising the H16L mutation has reduced binding affinity for CD122 and/or CD132 and/or increased potency and selectivity for Treg over other T cell types, compared to an IL-2 agent comprising other H16 mutations. These properties make an IL-2 fusion protein comprising the amino acid sequence of SEQ ID NO: 1008 particularly suitable for treating disorders and conditions arising from abnormal immune responses, such as autoimmune diseases.

Thus, in an embodiment, an IL-2 fusion protein comprising the amino acid sequence SEQ ID NO: 1008, or a functional fragment thereof, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, 30, 35, 40, 45, or 50 amino acids thereto, has *inter alia* one or more (*e.g.*, 2, 3, 4, 5, 6, 7, 8, or all) of the following properties relative to a wild-type IL-2 or a reference IL-2 fusion protein that does not comprise the amino acid substitutions: (i) enhanced or increased stability *in vitro* or *in vivo*; (ii) reduced or decreased binding capacity and/or binding affinity for human CD122 *in vitro* and/or *in vivo*; (iii) reduced or decreased binding capacity and/or binding affinity for human CD132 *in vitro* and/or *in vivo*; (iv) reduced or decreased affinity of the IL-2 fusion protein for the heterodimeric IL-2 receptor composed of human CD122 and human CD132 (*i.e.* human CD122/CD132 heterodimer) *in vitro* and/or *in vivo*; (v) reduced or decreased or substantially unchanged binding capacity and/or binding affinity for human CD25 *in vitro* and/or *in vivo*; (vi) selective binding to regulatory T cells (*e.g.* Foxp3⁺ T cells); (vii) selective activation of the IL-2 signaling pathway in T regulatory cells (Tregs) *in vitro* or *in vivo*; (viii) enhanced or increased ability to induce or promote Treg expansion, activity, survival and/or proliferation; or (ix) reduced or decreased effector function.

In an embodiment, the IL-2 fusion protein comprises from N-terminus to C-terminus an IL-2 variant described herein and an Fc region (*e.g.*, Fc region described herein). In an embodiment, the fusion protein further comprises a linker (*e.g.*, a linker described herein) between the IL-2 variant and the Fc region. In an embodiment the IL-2 fusion forms a dimer, *e.g.*, a homodimer.

In an embodiment, the fusion protein comprises one or more glycosylation sites, or is glycosylated. In another embodiment, the fusion protein does not have a glycosylation site, or is not glycosylated.

In an embodiment, the only amino acids in the fusion protein are canonical amino acids. In an embodiment, the fusion protein comprises naturally-occurring amino acids; analogs, derivatives and congeners thereof; amino acid analogs having variant side chains; and/or all stereoisomers of any

of any of the foregoing. The fusion protein may comprise the D- or L- optical isomers of amino acids and peptidomimetics.

In an aspect, this disclosure provides a method of making an IL-2 fusion protein disclosed herein. The IL-2 fusion proteins described herein can be produced by any suitable recombinant DNA
 5 technique. In an embodiment, the method includes culturing a cell containing a nucleic acid encoding the IL-2 fusion protein under conditions that allow production of the fusion protein. In another embodiment, the method further includes isolating or purifying the IL-2 fusion protein. In yet another embodiment, the method further includes evaluating efficacy of the IL-2 fusion protein in a cell-based assay or in an animal model. In still another embodiment, the method further includes administering
 10 the IL-2 fusion protein to a subject, *e.g.*, a human.

This disclosure provides an isolated nucleic acid molecule encoding an IL-2 fusion protein described herein, and vectors and host cells thereof. The nucleic acid molecule includes, but is not limited to, RNA, genomic DNA and cDNA.

15 ***IL-2 Complexes***

In an embodiment, the IL-2 agent comprises an IL-2 complex, *e.g.*, an IL-2 complex described herein. In an embodiment, the IL-2 complex is an IL-2/anti-IL-2 antibody immune complex (IL-2 ic).

In an embodiment, the IL-2 complex comprises an IL-2 variant described herein. In an
 20 embodiment, the IL-2 complex comprises one or more amino acid alterations (*e.g.*, substitutions) described in **Table 9**. In an embodiment, the IL-2 complex comprises an amino acid sequence described in **Table 9**, or a functional fragment thereof. In an embodiment, the IL-2 complex comprises an anti-IL-2 antibody molecule. In an embodiment, the IL-2 complex comprises an IL-2 variant described herein and an anti-IL-2 antibody molecule. In an embodiment, the anti-IL-2
 25 antibody molecule binds to the IL-2 variant. In an embodiment, the anti-IL-2 antibody molecule is capable of binding to the IL-2 variant and the wild-type IL-2. In an embodiment, the IL-2 variant comprises one or more mutations described herein. In an embodiment, the one or more mutations does not reduce, or does not substantially reduce, binding of the IL-2 variant to an anti-IL-2 antibody molecule.

In an embodiment, the IL-2 complex comprises an amino acid sequence chosen from: SEQ ID
 30 NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ
 35 ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 1000, SEQ ID NO: 1001, SEQ ID NO: 1002, or an amino acid

sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the IL-2 complex modulates (*e.g.*, stimulates) one or more activities of T cells. In an embodiment, the IL-2 complex stimulates CD25^{high} cells. In an embodiment, the IL-2 complex stimulates Tregs. In an embodiment, the IL-2 complex stimulates CD122^{high} cells. In an embodiment, the IL-2 complex stimulates NK cells and/or memory CD8⁺ T cells. In an embodiment, the IL-2 complex selectively stimulates CD25^{high} cells over CD122^{high} cells. In an embodiment, the IL-2 complex selectively stimulates CD122^{high} cells over CD25^{high} cells. In an embodiment, the IL-2 complex selectively stimulates Tregs over NK cells and/or memory CD8⁺ T cells. In an embodiment, the IL-2 complex selectively stimulates NK cells and/or memory CD8⁺ T cells over Tregs.

Exemplary IL-2 complexes are described, *e.g.*, in International Application Publication No. WO2021/021606 and U.S. Application Publication No. US2021/0024601, which are incorporated herein by reference in their entirety.

IL-2 Conjugates

In an embodiment, the IL-2 agent comprises a conjugate, *e.g.*, an IL-2 conjugate described herein.

In an embodiment, the IL-2 conjugate comprises an IL-2 variant described herein and a non-IL-2 moiety. In an embodiment, the IL-2 conjugate comprises one or more amino acid alterations (*e.g.*, substitutions) described in **Table 9**. In an embodiment, the IL-2 conjugate comprises an amino acid sequence described in **Table 9**, or a functional fragment thereof. In an embodiment, the non-IL-2 moiety comprises an antibody molecule, *e.g.*, an antibody molecule described herein. In an embodiment, the non-IL-2 moiety comprises a polymer, *e.g.*, a polyether compound. In an embodiment, the polyether compound comprises polyethylene glycol (PEG). In an embodiment, the non-IL-2 moiety comprises a cytokine. The IL-2 variant can be coupled to the non-IL-2 moiety directly, or indirectly, *e.g.*, through a linker. In an embodiment, the IL-2 conjugate is an IL-2 fusion protein.

In an embodiment, the IL-2 conjugate comprises an amino acid sequence chosen from: SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 1000, SEQ ID NO: 1001, SEQ ID NO: 1002, or an amino acid

sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

In an embodiment, the IL-2 conjugate is an immunoconjugate, *e.g.*, comprising an antibody molecule. In an embodiment, the IL-2 variant is coupled to the antibody molecule by a covalent bond. In an embodiment, the IL-2 variant is coupled to the antibody molecule by a peptide bond. In an embodiment, the IL-2 variant and the antibody molecule forms a fusion protein. In an embodiment, the fusion protein comprises a linker between the IL-2 variant and the antibody molecule (*e.g.*, a heavy chain, a light chain, or both). In an embodiment, the IL-2 variant is coupled to the antibody molecule by a non-peptide bond. In an embodiment, the IL-2 variant is not coupled to the antibody molecule by a non-peptide bond.

In an embodiment, the IL-2 variant is coupled to the backbone of the antibody molecule. In another embodiment, the IL-2 variant is coupled to a side chain of the antibody molecule. In an embodiment, the antibody molecule is coupled to the backbone of the IL-2 variant. In an embodiment, the antibody molecule is coupled to a side-chain of the IL-2 variant.

In an embodiment, two or more (*e.g.*, three, four, five, six, seven, eight, or more) IL-2 variants are coupled to the antibody molecule. In an embodiment, four IL-2 variants are coupled to the antibody molecule. For example, the IL-2 variants can be the same, or at least some of the IL-2 variants are different from each other. In an embodiment, the IL-2 variant is coupled to the antibody molecule in a bivalent manner. In another embodiment, the IL-2 variant is coupled to the antibody molecule in a tetravalent manner.

Exemplary IL-2 conjugates are described, *e.g.*, in International Application Publication No. WO2021/021606 and U.S. Application Publication No. US2021/0024601, which are incorporated herein by reference in their entirety.

IL-2 Receptors

The IL-2 agents (*e.g.*, IL-2 variants, IL-2 fusion proteins, IL-2 complexes, or IL-2 conjugates) described herein can bind to an IL-2 receptor (IL-2R) and/or modulate one or more functions associated with an IL-2R.

IL-2R is a heterotrimeric protein expressed on the surface of certain immune cells, such as lymphocytes, that binds and responds to IL-2. IL-2 receptor typically has three forms, generated by different combinations of three different chains: α (alpha) (also known as IL-2R α , CD25, or Tac antigen), β (beta) (also known as IL-2R β , or CD122), and γ (gamma) (also known as IL-2R γ , γ_c , common gamma chain, or CD132).

The IL-2R chains are expressed separately and differently on various cell types and can assemble in different combinations and orders to generate low, intermediate, and high affinity IL-2Rs. IL-2R α binds IL-2 with low affinity; IL-2R β and IL-2R γ together form a complex that binds IL-2 with

intermediate affinity (*e.g.*, on memory T cells and NK cells); and IL-2R α , IL-2R β , and IL-2R γ together form a complex that binds IL-2 with high affinity (*e.g.*, on activated T cells and regulatory T cells).

IL-2R β and IL-2R γ complex with Janus kinase 1 (JAK1) and Janus kinase 3 (JAK3), respectively. The binding of IL-2 to IL-2R can activate JAK1/JAK2 and initiate downstream intracellular signaling, *e.g.*, the MAP kinase pathway, the Phosphoinositide 3-kinase (PI3K) pathway, or the JAK-STAT pathway (Liao *et al.*, *Curr Opin Immunol.* 2011; 23(5): 598-604; Malek and Castro. *Immunity.* 2010; 33(2): 153-165).

IL-2R plays important roles in the immune system, tolerance and immunity. For example, the interaction between IL-2 and IL-2R is involved in promoting the differentiation of certain immature T cells into regulatory T cells, and the differentiation of T cells into effector T cells and into memory T cells. The interaction between IL-2 and IL-2R is also associated with autoimmune diseases, infections, and cell-mediated immunity.

In an aspect, the disclosure provides IL-2 agents comprising an IL-2 variant described herein that has an altered binding affinity to an IL-2R, *e.g.*, one, two, or all of IL-2R α , IL-2R β , or IL-2R γ . For example, the IL-2 variant can have one or more (*e.g.*, two, three, four, five, or more) amino acid alternations (*e.g.*, substitutions or mutations) associated with the interaction between IL-2 and IL-2R, *e.g.*, one, two, or all of IL-2R α , IL-2R β , or IL-2R γ .

In an embodiment, the IL-2 agent has an altered (*e.g.*, reduced) binding affinity to IL-2R α . In an embodiment, the binding affinity to IL-2R α is reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant. In an embodiment, the IL-2 agent has an altered (*e.g.*, reduced) binding affinity to IL-2R β . In an embodiment, the binding affinity to IL-2R β is reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant. In an embodiment, the IL-2 agent has an altered (*e.g.*, reduced) binding affinity to IL-2R γ . In an embodiment, the binding affinity to IL-2R γ is reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant.

In an embodiment, the IL-2 agent has an altered (*e.g.*, reduced) binding affinity to IL-2R α and an altered (*e.g.*, reduced) binding affinity to IL-2R β . In an embodiment, the binding affinity to IL-2R α is reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more, and the binding affinity to IL-2R β is reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more. In an embodiment, the binding affinities to IL-2R α and IL-2R β are reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant.

In an embodiment, the IL-2 agent has an altered (*e.g.*, reduced) binding affinity to IL-2R α and an altered (*e.g.*, reduced) binding affinity to IL-2R γ . In an embodiment, the binding affinity to IL-

2R α is reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more, and the binding affinity to IL-2R γ is reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more. In an embodiment, the binding affinities to IL-2R α and IL-2R γ are reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant.

In an embodiment, the IL-2 agent has an altered (*e.g.*, reduced) binding affinity to IL-2R β and an altered (*e.g.*, reduced) binding affinity to IL-2R γ . In an embodiment, the binding affinity to IL-2R β is reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more, and the binding affinity to IL-2R γ is reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more.

In an embodiment, the binding affinities to IL-2R β and IL-2R γ are reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant.

In an embodiment, the IL-2 agent has an altered (*e.g.*, reduced) binding affinity to IL-2R α , an altered (*e.g.*, reduced) binding affinity to IL-2R β , and an altered (*e.g.*, reduced) binding affinity to IL-2R γ . In an embodiment, the binding affinity to IL-2R α is reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more, the binding affinity to IL-2R β is reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more, and the binding affinity to IL-2R γ is reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more. In an embodiment, the binding affinities to IL-2R α , IL-2R β , and IL-2R γ are reduced by about 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, or more, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant.

In an embodiment, the binding affinity of an IL-2 agent provided by the disclosure to any of IL-2R α , IL-2R β , or IL-2R γ is reduced, but not abolished. For example, the reduction can range from about 10% to about 90%, *e.g.*, from about 20% to about 80%, from about 30% to about 70%, from about 40% to about 60%, from about 10% to about 50%, or from about 50% to about 90%, relative to an IL-2 agent comprising a wild-type IL-2 or an IL-2 agent comprising a reference IL-2 variant.

Fc Region

The present disclosure provides IL-2 agents (*e.g.*, IL-2 variants, fusion polypeptides, complexes, or immunoconjugates) comprising an Fc region or a fragment thereof, *e.g.*, an Fc region, or a fragment thereof (*e.g.*, a functional fragment thereof), described herein.

In an embodiment, the IL-2 agent comprises an IL-2 variant described herein and an Fc region described herein. In an embodiment, the IL-2 agent further comprises a linker between the IL-2 variant and the Fc region. In an embodiment, the IL-2 agent comprises an IL-2 fusion protein comprising an Fc region described herein. In an embodiment, the Fc region comprises one or more mutations described herein.

A fragment crystallizable region, or Fc region, refers to a region of an immunoglobulin that interacts with an Fc receptor. In an embodiment, the Fc region interacts with a protein of the complement system. While without wishing to be bound by theory, it is believed that in an embodiment, the interaction between the Fc region with an Fc receptor, allows for activation of the immune system.

In IgG, IgA and IgD antibody isotypes, the naturally-occurring Fc region generally comprises two identical protein fragments, derived from the second and third constant domains of the antibody's two heavy chains. Naturally-occurring IgM and IgE Fc regions generally comprise three heavy chain constant domains (C_H domains 2–4) in each polypeptide chain. The Fc regions of IgGs can contain a highly conserved N-glycosylation site (Stadlmann et al. (2008). *Proteomics* 8 (14): 2858–2871; Stadlmann (2009) *Proteomics* 9 (17): 4143–4153). While not wishing to be bound by theory, it is believed that in an embodiment, glycosylation of the Fc fragment contributes to Fc receptor-mediated activities (Peipp et al. (2008) *Blood* 112 (6): 2390–2399). In an embodiment, the N-glycans attached to this site are predominantly core-fucosylated diantennary structures of the complex type. In another embodiment, small amounts of these N-glycans also contain bisecting GlcNAc and/or α -2,6 linked sialic acid residues.

An exemplary fragment of an Fc region amino acid sequence from human IgG1 is provided in SEQ ID NO: 40 and is shown below:

DKTHTCPPCPAPPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAK
TKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRD
ELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFS
CSVMHEALHNHYTQKSLSLSPGK (SEQ ID NO: 40)

In SEQ ID NO: 40, the first amino acid residue in this sequence is referred to as position 221 herein. The three histidine residues shown in bold and underlined are positions 310, 433 and 435, respectively.

An IL-2 agent comprising an Fc region or fragment thereof (e.g., IL-2-Fc fusion protein) described herein can have one or more (e.g., 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, or more) of mutations or combinations of mutations described in **Table 1** (e.g., according to EU numbering).

Table 1. Exemplary Fc mutations

Name	Mutation
FcMut001	I253M
FcMut002	L309H_D312A_N315D
FcMut003	L309N
FcMut004	M252E_S254R
FcMut005	M252E_S254R_R255Y
FcMut006	S254H

FcMut007	S254M
FcMut008	T256D_T307R
FcMut009	T256L_N286I_T307I
FcMut010	T256I_N286I_T307I
FcMut011	K248S_D376Q
FcMut012	K248S_D376N
FcMut013	D376Q_E380A
FcMut014	D376N_E380A
FcMut015	D376Q_M428L
FcMut016	K248S_A378I
FcMut017	L314K
FcMut018	T250Q_M428L
FcMut019	M428L_N434A
FcMut020	N434A
FcMut021	T307A_E380A_N434A
FcMut022	M252W
FcMut023	V308F
FcMut024	V308F_N434Y
FcMut026	T256D_T307R_D376N
FcMut027	L309R_D312E
FcMut028	L309R_Q311P_D312E
FcMut029	K246N_P247A
FcMut030	K246N_P247A_D376N
FcMut031	T256E_T307R
FcMut032	T256R_T307D
FcMut033	T256R_T307E
FcMut034	Q311P
FcMut035	D376Q
FcMut036	L234A_L235A
FcMut037	L235V_G236A
FcMut038	L234P_L235P
FcMut039	L235P
FcMut040	P329G
FcMut041	P329E
FcMut042	E233K
FcMut043	T256D_N286D_A287S_T307R
FcMut044	T256D_P257L_T307R
FcMut045	T256D_T307R_Q311V
FcMut046	P247D_T256D_T307R
FcMut047	P247D_N286D_A287S_Q311V
FcMut048	P257M_V308N
FcMut049	V279I_Q311L_N315T
FcMut050	M428L_N434S
FcMut051	N434S
FcMut052	H433G_N434P
FcMut053	V259I_V308F_M428L
FcMut067	T256D_N286D_T307R
FcMut068	T256D_N286E_T307R
FcMut069	T256D_N286Q_T307R

FcMut070	T256D_P257T_T307R
FcMut071	T256D_P257V_T307R
FcMut072	T256D_T307R_Q311I
FcMut073	T256D_T307R_Q311L
FcMut074	T256D_T307R_Q311M
FcMut075	T256D_P257L_N286D_T307R_Q311V
FcMut076	T256D_T307R_M428L
FcMut077	M428L
FcMut078	M252Y_S254T_T256Q
FcMut079	M252Y_S254T_T256E_K288E
FcMut080	T256K_K288E
FcMut081	T256D_E258T
FcMut082	E283Q_H285E
FcMut083	R344D_D401R
FcMut084	K248E_E380K
FcMut085	K248E_E380R
FcMut086	K246H
FcMut087	K248H
FcMut088	T250I
FcMut089	T250V
FcMut090	L251F
FcMut091	L251M
FcMut093	P257V
FcMut094	N276D
FcMut095	H285N
FcMut096	H285D
FcMut097	K288H
FcMut098	K288Q
FcMut099	K288E
FcMut100	T307E
FcMut101	T307Q
FcMut102	V308P
FcMut103	V308I
FcMut104	V308L
FcMut105	L309H
FcMut106	L309M
FcMut107	Q311H
FcMut108	L314F
FcMut109	Y319H
FcMut110	I336T
FcMut111	P343D
FcMut112	P343V
FcMut113	E345Q
FcMut114	P346V
FcMut115	P374T
FcMut116	D376N
FcMut117	A378S
FcMut118	A431T
FcMut119	A431P

FcMut120	A431G
FcMut121	L432V
FcMut122	L432I
FcMut123	L432Q
FcMut124	N434T
FcMut125	H435N
FcMut126	Y436H
FcMut127	K439Q
FcMut128	T256D
FcMut129	T307R
FcMut130	A378T
FcMut131	A378D
FcMut132	A378H
FcMut133	A378Y
FcMut134	A378V
FcMut135	D376R
FcMut136	D376F
FcMut137	D376W
FcMut138	L314H
FcMut139	L432E_T437Q
FcMut140	D376Q_A378T
FcMut141	D376Q_I377M_A378T
FcMut142	P244Q_D376Q
FcMut143	P247T_A378T
FcMut144	P247N_A378T
FcMut145	T256D_T307R_L309T
FcMut146	A339T_S375E_F404Y
FcMut147	L235V_G236A_T256D_T307R
FcMut148	L235V_G236A_D376Q_M428L
FcMut149	L314N
FcMut150	N315D
FcMut151	A378T
FcMut152	T437Q
FcMut153	L432E
FcMut154	Y436R
FcMut155	L314M
FcMut156	L234A_L235A_T256D_T307R_Q311V
FcMut157	L234A_L235A_T256D_P257V_T307R
FcMut158	L234A_L235A_T256D_P257L_N286D_T307R_Q311V
FcMut159	L235V_G236A_T256D_T307R_Q311V
FcMut160	L235V_G236A_T256D_P257V_T307R
FcMut161	L235V_G236A_T256D_P257L_N286D_T307R_Q311V
FcMut162	S267T_A327N_A330M
FcMut163	S267T_A327N
FcMut164	L235V_G236A_S267T_A327N_A330M
FcMut165	L235V_G236A_S267T_A327N
FcMut166	M252Y_S254T
FcMut167	T256E
FcMut168	G236A_I332E

FcMut169	S239D_I332E
FcMut170	G236A_S239D_I332E
FcMut171	T256D_N286D_T307R_Q311V
FcMut172	T256D_E258T_T307R
FcMut173	T256D_E258T_T307R_Q311V
FcMut174	T256D_P257V_E258T_T307R
FcMut175	T256D_P257L_E258T_N286D_T307R_Q311V
FcMut176	T256D_E258T_N286D_T307R_Q311V
FcMut177	A378V_M428L
FcMut178	A378V_M428I
FcMut179	A378V_M428V
FcMut180	T256D_N286D
FcMut181	T256D_A378V
FcMut182	T256D_Q311V
FcMut183	T256D_Q311V_A378V
FcMut184	T256D_T307R_A378V
FcMut185	T256D_N286D_T307R_A378V
FcMut186	T256D_T307R_Q311V_A378V
FcMut187	H285D_A378V
FcMut188	H285D_Q311V
FcMut189	T256D_H285D
FcMut190	T256D_H285D_Q311V
FcMut191	T256D_H285D_T307R
FcMut192	T256D_H285D_T307R_A378V
FcMut193	H285D_L314M_A378V
FcMut194	T256D_E258T_H285D_Q311H
FcMut195	T256D_E258T_H285D
FcMut196	H285D_N315D
FcMut197	H285N_T307Q_N315D
FcMut198	H285D_L432E_T437Q
FcMut199	T256D_E258T_N315D
FcMut200	P257V_H285N
FcMut201	H285N_L432F
FcMut202	H285N_T437I
FcMut203	T256D_E258T_L314M
FcMut204	T256D_E258T_T307Q
FcMut205	T256D_E258T_A378V
FcMut206	V308P_A378V
FcMut207	P257V_A378T
FcMut208	P257V_V308P_A378V
FcMut209	N315D_A378T
FcMut210	H285N_L314M
FcMut211	L314M_L432E_T437Q
FcMut212	T307Q_N315D
FcMut213	H285D_T307Q_A378V
FcMut214	L314M_N315D
FcMut215	T307Q_Q311V_A378V
FcMut216	H285D_Q311V_A378V
FcMut217	Q311V_N315D_A378V

FcMut218	T256D_E258T_Q311V
FcMut219	T256D_N315D_A378V
FcMut220	T256D_Q311V_N315D
FcMut221	T256D_T307Q_A378V
FcMut222	T256D_T307Q_Q311V
FcMut223	T256D_H285D_A378V
FcMut224	T256D_H285D_T307R_Q311V
FcMut225	T256D_H285D_N286D_T307R
FcMut226	T256D_H285D_N286D_T307R_Q311V
FcMut227	T256D_H285D_N286D_T307R_A378V
FcMut228	T256D_N286D_T307R_Q311V_A378V
FcMut229	T256D_H285D_T307R_Q311V_A378V
FcMut230	V308P_Q311V_A378V
FcMut231	T256D_V308P_A378V
FcMut232	T256D_V308P_Q311V
FcMut233	T256D_E258T_V308P
FcMut234	H285D_V308P_Q311V
FcMut242	E258T
FcMut243	N286D
FcMut244	Q311V
YTE	M252Y_S254T_T256E

- In an embodiment, the Fc region comprises FcMut001. In an embodiment, the Fc region comprises FcMut002. In an embodiment, the Fc region comprises FcMut003. In an embodiment, the Fc region comprises FcMut004. In an embodiment, the Fc region comprises FcMut005. In an embodiment, the Fc region comprises FcMut006. In an embodiment, the Fc region comprises FcMut007. In an embodiment, the Fc region comprises FcMut008. In an embodiment, the Fc region comprises FcMut009. In an embodiment, the Fc region comprises FcMut010. In an embodiment, the Fc region comprises FcMut011. In an embodiment, the Fc region comprises FcMut012. In an embodiment, the Fc region comprises FcMut013. In an embodiment, the Fc region comprises FcMut014. In an embodiment, the Fc region comprises FcMut015. In an embodiment, the Fc region comprises FcMut016. In an embodiment, the Fc region comprises FcMut017. In an embodiment, the Fc region comprises FcMut018. In an embodiment, the Fc region comprises FcMut019. In an embodiment, the Fc region comprises FcMut020. In an embodiment, the Fc region comprises FcMut021. In an embodiment, the Fc region comprises FcMut022. In an embodiment, the Fc region comprises FcMut023. In an embodiment, the Fc region comprises FcMut024. In an embodiment, the Fc region comprises FcMut026. In an embodiment, the Fc region comprises FcMut027. In an embodiment, the Fc region comprises FcMut028. In an embodiment, the Fc region comprises FcMut029. In an embodiment, the Fc region comprises FcMut030. In an embodiment, the Fc region comprises FcMut031. In an embodiment, the Fc region comprises FcMut032. In an embodiment, the Fc region comprises FcMut033. In an embodiment, the Fc region comprises FcMut034. In an embodiment, the Fc region comprises FcMut035. In an embodiment, the Fc region comprises

[illegible]

[illegible]

Fc region comprises FcMut180. In an embodiment, the Fc region comprises FcMut181. In an embodiment, the Fc region comprises FcMut182. In an embodiment, the Fc region comprises FcMut183. In an embodiment, the Fc region comprises FcMut184. In an embodiment, the Fc region comprises FcMut185. In an embodiment, the Fc region comprises FcMut186. In an embodiment, the Fc region comprises FcMut187. In an embodiment, the Fc region comprises FcMut188. In an embodiment, the Fc region comprises FcMut189. In an embodiment, the Fc region comprises FcMut190. In an embodiment, the Fc region comprises FcMut191. In an embodiment, the Fc region comprises FcMut192. In an embodiment, the Fc region comprises FcMut193. In an embodiment, the Fc region comprises FcMut194. In an embodiment, the Fc region comprises FcMut195. In an embodiment, the Fc region comprises FcMut196. In an embodiment, the Fc region comprises FcMut197. In an embodiment, the Fc region comprises FcMut198. In an embodiment, the Fc region comprises FcMut199. In an embodiment, the Fc region comprises FcMut200. In an embodiment, the Fc region comprises FcMut201. In an embodiment, the Fc region comprises FcMut202. In an embodiment, the Fc region comprises FcMut203. In an embodiment, the Fc region comprises FcMut204. In an embodiment, the Fc region comprises FcMut205. In an embodiment, the Fc region comprises FcMut206. In an embodiment, the Fc region comprises FcMut207. In an embodiment, the Fc region comprises FcMut208. In an embodiment, the Fc region comprises FcMut209. In an embodiment, the Fc region comprises FcMut210. In an embodiment, the Fc region comprises FcMut211. In an embodiment, the Fc region comprises FcMut212. In an embodiment, the Fc region comprises FcMut213. In an embodiment, the Fc region comprises FcMut214. In an embodiment, the Fc region comprises FcMut215. In an embodiment, the Fc region comprises FcMut216. In an embodiment, the Fc region comprises FcMut217. In an embodiment, the Fc region comprises FcMut218. In an embodiment, the Fc region comprises FcMut219. In an embodiment, the Fc region comprises FcMut220. In an embodiment, the Fc region comprises FcMut221. In an embodiment, the Fc region comprises FcMut222. In an embodiment, the Fc region comprises FcMut223. In an embodiment, the Fc region comprises FcMut224. In an embodiment, the Fc region comprises FcMut225. In an embodiment, the Fc region comprises FcMut226. In an embodiment, the Fc region comprises FcMut227. In an embodiment, the Fc region comprises FcMut228. In an embodiment, the Fc region comprises FcMut229. In an embodiment, the Fc region comprises FcMut230. In an embodiment, the Fc region comprises FcMut231. In an embodiment, the Fc region comprises FcMut232. In an embodiment, the Fc region comprises FcMut233. In an embodiment, the Fc region comprises FcMut234. In an embodiment, the Fc region comprises FcMut242. In an embodiment, the Fc region comprises FcMut243. In an embodiment, the Fc region comprises FcMut244.

In an embodiment, the Fc region comprises one or more (*e.g.*, 2, 3, 4, 5, 6, 7, 8, 9, or more) of mutations or combinations of mutations chosen from FcMut045, FcMut171, FcMut183, FcMut186, FcMut190, FcMut197, FcMut213, FcMut215, FcMut216, FcMut219, FcMut222, FcMut223, FcMut224, FcMut226, FcMut227, FcMut228, or FcMut229. In an embodiment, the Fc region

comprises one or more (*e.g.*, 2, 3, 4, 5, 6, or all) of mutations or combinations of mutations chosen from FcMut045, FcMut183, FcMut197, FcMut213, FcMut215, FcMut228, or FcMut156. In another embodiment, the Fc region comprises one or more (*e.g.*, 2, 3, 4, 5, or all) of mutations or combinations of mutations chosen from FcMut183, FcMut197, FcMut213, FcMut215, FcMut228, or FcMut229.

In an embodiment, the Fc region does not comprise one or more (*e.g.*, 2, 3, 4, or all) of mutations or combinations of mutations chosen from FcMut018, FcMut021, FcMut050, FcMut102, or YTE. In an embodiment, the Fc region comprises one or more (*e.g.*, 2, 3, 4, or all) of mutations or combinations of mutations chosen from FcMut018, FcMut021, FcMut050, FcMut102, or YTE, and one or more other mutations or combinations of mutations described in **Table 1**.

In an embodiment, the Fc region comprises one or more (*e.g.*, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, or more) of mutations or combinations of mutations described in **Table 1** that result in a synergistic effect (*e.g.*, binding affinity or circulating half-life) as described herein.

In an embodiment, the Fc region comprises one or more (*e.g.*, 2, 3, 4, 5, 6, or 7) mutations in residues chosen from T256, H285, N286, T307, Q311, N315, or A378. In an embodiment, the Fc region comprises one or more (*e.g.*, 2, 3, 4, 5, 6, or 7) mutations chosen from T256D, H285N, N286D, T307Q, Q311V, N315D, or A378V.

In an embodiment, the Fc region comprises a half-life enhancing mutation, a mutation that is capable of disrupting an Fc effector function, or both. In an embodiment, the Fc region comprises one or more mutations or combinations of mutations described herein, *e.g.*, chosen from M252W, V308F/N434Y, R255Y, P257L/N434Y, V308F, P257N/M252Y, G385N, P257N/V308Y, N434Y, M252Y/S254T/T256E (“YTE”), M428L/N434S (“LS”), or any combination thereof. Alternatively, or additionally, in an embodiment, the Fc region comprises (a) one or more (*e.g.*, 2, 3, 4, 5, or all) combinations of mutations chosen from: T256D/Q311V/A378V, H285N/T307Q/N315D, H285D/T307Q/A378V, T307Q/Q311V/A378V, T256D/N286D/T307R/Q311V/A378V, or T256D/T307R/Q311V; (b) a mutation or a combination of mutations capable of disrupting an Fc effector function, *e.g.*, N297G, L234A/L235A (also known as “LALA” mutation), L234A/L235A/P329G (also known as “LALAPG” mutation), or (c) both (a) and (b).

In an embodiment, the Fc region comprises mutations T256D/Q311V/A378V and a mutation or a combination of mutations capable of disrupting an Fc effector function, *e.g.*, L234A/L235A. In an embodiment, the Fc region comprises mutations H285N/T307Q/N315D and a mutation or a combination of mutations capable of disrupting an Fc effector function, *e.g.*, L234A/L235A. In an embodiment, the Fc region comprises mutations H285D/T307Q/A378V and a mutation or a combination of mutations capable of disrupting an Fc effector function, *e.g.*, L234A/L235A. In an embodiment, the Fc region comprises mutations T307Q/Q311V/A378V and a mutation or a combination of mutations capable of disrupting an Fc effector function, *e.g.*, L234A/L235A. In an embodiment, the Fc region comprises mutations T256D/N286D/T307R/Q311V/A378V and a

mutation or a combination of mutations capable of disrupting an Fc effector function, *e.g.*, L234A/L235A. In an embodiment, the Fc region comprises mutations T256D/T307R/Q311V and a mutation or a combination of mutations capable of disrupting an Fc effector function, *e.g.*, L234A/L235A. Other exemplary Fc mutations are described, *e.g.*, in International Application Publication No. WO2018/052556, U.S. Application Publication No. US2018/0037634, and Booth et al. MAbs. 2018; 10(7): 1098-1110, the contents of which are incorporated by reference in their entirety.

In an embodiment the Fc region comprises the Fc region of human IgG1, *e.g.*, human IgG1 m3 allotype. In an embodiment, the Fc region comprises the mutation N297G. In an embodiment, the Fc region comprises the Fc region of human IgG1 allotype m3, human IgG1 allotype m3 comprising the mutation N297G and/or other mutations of the Fc region of human IgG1 allotype m3, or a fragment thereof. In an embodiment, the Fc region comprises the sequence of SEQ ID NO: 1003, or an amino acid sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 amino acids thereto.

Any of the mutations in the Fc region that extend half-life described herein can be used in combination with any Fc mutation capable of enhancing or disrupting an Fc effector function.

In an embodiment the Fc region comprises the Fc region of human IgG4, human IgG4 containing S228P mutation, and/or R409K mutation, and/or other mutations of the Fc region of human IgG4, or a fragment thereof. An exemplary fragment of an Fc region amino acid sequence from human IgG4 is provided in SEQ ID NO: 44 and is shown below:

E₂₁₉SKYGPPCPP₂₂₈CPAPEFLGGPSV₂₄₀FLFPPKPKDT₂₅₀LMISRTPEVT₂₆₀CVVVDVSQED₂₇₀PEVQFNWYVD₂₈₀GVEVHNAKTK₂₉₀PREEQFNSTY₃₀₀RVVSVLT₃₀₇VLHQ₃₁₁DWLNKEYK₃₂₀CKVSNKGLPS₃₃₀SIEKTISKAK₃₄₀GQPREPQVYT₃₅₀LPPSQEEMTK₃₆₀NQVSLTCLVK₃₇₀GFYPSDIAA₃₇₈VEWESNGQPENNYKTTPPVLDSDGSFFLYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLSLGK (SEQ ID NO: 44)

In SEQ ID NO: 44, the first amino acid residue in this sequence is referred to as position 219 herein. Mutations described to extend the half-life of human IgG1 can be applied to human IgG4 Fc. For example, Mut215 corresponds to mutations T307Q/Q311V/A378V in SEQ ID NO: 44.

The Fc region can bind to various cell receptors (*e.g.*, Fc receptors) and complement proteins. The Fc region can also mediate different physiological effects of antibody molecules, *e.g.*, detection of opsonized particles; cell lysis; degranulation of mast cells, basophils, and eosinophils; and other processes.

There are several different types of Fc receptors (FcR), which can be classified based on the type of antibody that they recognize.

Fcγ receptors (FcγR) belong to the immunoglobulin superfamily, and are involved, *e.g.*, in inducing phagocytosis of opsonized microbes. This family includes several members, FcγRI (CD64),

Fc γ RIIA (CD32), Fc γ RIIB (CD32), Fc γ RIIIA (CD16a), Fc γ RIIIB (CD16b), which differ in their antibody affinities due to their different molecular structure. For instance, Fc γ RI can bind to IgG more strongly than Fc γ RII or Fc γ RIII does. Fc γ RI also has an extracellular portion comprising three immunoglobulin (Ig)-like domains, one more domain than Fc γ RII or Fc γ RIII has. This property
 5 allows Fc γ RI to bind a sole IgG molecule (or monomer), but Fc γ receptors generally need to bind multiple IgG molecules within an immune complex to be activated.

The Fc γ receptors differ in their affinity for IgG and the different IgG subclasses can have unique affinities for each of the Fc γ receptors. These interactions can be further tuned by the glycan (oligosaccharide) at certain position of IgG. For example, by creating steric hindrance, fucose
 10 containing CH2-84.4 glycans reduce IgG affinity for Fc γ RIIIA, whereas G0 glycans, which lack galactose and terminate instead with GlcNAc moieties, have increased affinity for Fc γ RIIIA (Maverakis *et al.* (2015) *Journal of Autoimmunity* 57 (6): 1-13).

The neonatal Fc receptor (FcRn) is expressed on multiple cell types and is similar in structure to MHC class I. This receptor also binds IgG and is involved in preservation of this antibody (Zhu *et al.* (2001). *Journal of Immunology* 166 (5): 3266–76.). FcRn is also involved in transferring IgG from
 15 a mother either via the placenta to her fetus or in milk to her suckling infant. This receptor may also play a role in the homeostasis of IgG serum levels.

Fc α RI (or CD89) belongs to the Fc α R subgroup. Fc α RI is found on the surface of neutrophils, eosinophils, monocytes, macrophages (including Kupffer cells), and dendritic cells. It
 20 comprises two extracellular Ig-like domains and is a member of both the immunoglobulin superfamily and the multi-chain immune recognition receptor (MIRR) family. It signals by associating with two Fc γ signaling chains.

Fc α /mu receptor (Fc α /muR) is a type I transmembrane protein. It can bind IgA, although it has higher affinity for IgM (Shibuya and Honda (2006) *Springer Seminars in Immunopathology* 28
 25 (4): 377–82). With one Ig-like domain in its extracellular portion, this Fc receptor is also a member of the immunoglobulin superfamily.

There are two known types of Fc ϵ R. The high-affinity receptor Fc ϵ RI is a member of the immunoglobulin superfamily (it has two Ig-like domains). Fc ϵ RI is found on epidermal Langerhans cells, eosinophils, mast cells and basophils. This receptor can play a role in controlling allergic
 30 responses. Fc ϵ RI is also expressed on antigen-presenting cells, and controls the production of immune mediators, *e.g.*, cytokines that promote inflammation (von Bubnoff *et al.* (2003) *Clinical and Experimental Dermatology* 28 (2): 184–7). The low-affinity receptor Fc ϵ RII (CD23) is a C-type lectin. Fc ϵ RII has multiple functions as a membrane-bound or soluble receptor. It can also control B cell growth and differentiation and blocks IgE-binding of eosinophils, monocytes, and basophils
 35 (Kikutani *et al.* (1989) *Ciba Foundation Symposium* 147: 23–31).

In an embodiment, the Fc region can be engineered to contain an antigen-binding site to generate an Fcab fragment (Wozniak-Knopp *et al.* (2010) *Protein Eng Des* 23 (4): 289–297). Fcab

fragments can be inserted into a full immunoglobulin by swapping the Fc region, thus obtaining a bispecific antibody (with both Fab and Fcab regions containing distinct binding sites).

The binding and recycling of FcRn can be illustrated below. For example, IgG and albumin are internalized into vascular endothelial cells through pinocytosis. The pH of the endosome is 6.0, facilitating association with membrane-bound FcRn. The contents of endosomes can be processed in one of two ways: either recycling back to the apical cell membrane or transcytosis from the apical to the basolateral side. IgG not associated with FcRn is degraded by lysosomes.

While not wishing to be bound by theory, it is believed that FcRn interaction with IgG is mediated through Fc. The binding of Fc to FcRn is pH specific, *e.g.*, no significant binding at pH 7.4 and strong binding in acidic environment. Structure of FcRn in complex with Fc domain of IgG1 molecule is described, *e.g.*, in FIG. 1 of International Application Publication No. WO2018/052556 or U.S. Application Publication No. US2018/0037634. Each FcRn molecule generally binds to an Fc-monomer. In an embodiment, Fab domains can also influence binding of IgG to FcRn, *e.g.*, have either a negative or no influence on the affinity of the IgG for FcRn.

There can be multiple considerations when an Fc region is engineered to enhance half-life of a polypeptide. For example, prolonging half-life and efficient recirculation of antibody molecules or fusion proteins often requires pH specific affinity enhancement (*e.g.*, only at low pH of the endosome). FcRn binds proximal to the linker region between CH2 and CH3 domains of a Fc region. Modifications to the linker can impact Fc engagement with Fc γ receptors. Modifications on the Fc region can impact thermal stability and aggregation properties of the polypeptide.

Pharmaceutical Compositions and Kits

The present disclosure provides compositions, *e.g.*, pharmaceutical compositions, which include an IL-2 agent described herein, and optionally a pharmaceutically acceptable carrier.

As used herein, "pharmaceutically acceptable carrier" includes any and all solvents, dispersion media, isotonic and absorption delaying agents, and the like that are physiologically compatible. The carrier can be suitable for intravenous, intramuscular, subcutaneous, parenteral, rectal, spinal or epidermal administration (*e.g.*, by injection or infusion). In an embodiment, less than about 5%, *e.g.*, less than about 4%, 3%, 2%, or 1% of the IL-2 agents in the composition are present as aggregates. In an embodiment, at least about 95%, *e.g.*, at least about 96%, 97%, 98%, 98.5%, 99%, 99.5%, 99.8%, or more of the IL-2 agents in the composition are present as monomers. In an embodiment, at least about 95%, *e.g.*, at least about 96%, 97%, 98%, 98.5%, 99%, 99.5%, 99.8%, or more of the IL-2 agents in the composition are present as dimers. In an embodiment, the level of aggregates, dimers, or monomers is determined by chromatography, *e.g.*, high performance liquid chromatography size exclusion chromatography (HPLC-SEC). In an embodiment, the IL-2 agent is formulated together with the pharmaceutically acceptable carrier.

The compositions set out herein may be in a variety of forms. These include, for example, liquid, semi-solid and solid dosage forms, such as liquid solutions (*e.g.*, injectable and infusible solutions), dispersions or suspensions, liposomes, and suppositories. A suitable form depends on the intended mode of administration and therapeutic application. Typical suitable compositions are in the form of injectable or infusible solutions. One suitable mode of administration is parenteral (*e.g.*, intravenous, subcutaneous, intraperitoneal, intramuscular). In an embodiment, the IL-2 agent is administered by intravenous infusion or injection. In another embodiment, the IL-2 agent is administered by intramuscular or subcutaneous injection. In an embodiment, the IL-2 agent is administered subcutaneously (*e.g.*, presented in an autoinjector or prefilled syringe).

The terms “parenteral administration” and “administered parenterally” as used herein means modes of administration other than enteral and topical administration, usually by injection, and includes, without limitation, intravenous, intramuscular, intraarterial, intrathecal, intracapsular, intraorbital, intracardiac, intradermal, intraperitoneal, transtracheal, subcutaneous, subcuticular, intraarticular, subcapsular, subarachnoid, intraspinal, epidural and intrasternal injection and infusion.

Pharmaceutical compositions (*e.g.*, for therapeutic applications) typically should be sterile and stable under the conditions of manufacture and storage. The composition can be formulated as a solution, microemulsion, dispersion, liposome, or other ordered structure suitable to high antibody concentration. Sterile injectable solutions can be prepared by incorporating the active compound (*i.e.*, antibody or antibody portion) in the required amount in an appropriate solvent with one or a combination of ingredients enumerated above, as required, followed by filtered sterilization. Generally, dispersions are prepared by incorporating the active compound into a sterile vehicle that contains a basic dispersion medium and the required other ingredients from those enumerated above. In the case of sterile powders for the preparation of sterile injectable solutions, the preferred methods of preparation are vacuum drying and freeze-drying that yields a powder of the active ingredient plus any additional desired ingredient from a previously sterile-filtered solution thereof. The proper fluidity of a solution can be maintained, for example, by the use of a coating such as lecithin, by the maintenance of the required particle size in the case of dispersion and by the use of surfactants. Prolonged absorption of injectable compositions can be brought about by including in the composition an agent that delays absorption, for example, monostearate salts and gelatin.

The IL-2 agents described herein can be administered by a variety of methods. Several are known in the art, and for many therapeutic, prophylactic, or diagnostic applications, an appropriate route/mode of administration is intravenous injection or infusion. For example, the IL-2 agents can be administered by intravenous infusion at a rate of less than 10mg/min; preferably less than or equal to 5 mg/min to reach a dose of about 1 to 100 mg/m², preferably about 5 to 50 mg/m², about 7 to 25 mg/m² and more preferably, about 10 mg/m². As will be appreciated by the skilled artisan, the route and/or mode of administration will vary depending upon the desired results. In certain embodiments, the active compound may be prepared with a carrier that will protect the compound against rapid

release, such as a controlled release formulation, including implants, transdermal patches, and microencapsulated delivery systems. Biodegradable, biocompatible polymers can be used, such as ethylene vinyl acetate, polyanhydrides, polyglycolic acid, collagen, polyorthoesters, and polylactic acid. Many methods for the preparation of such formulations are patented or generally known to those skilled in the art. See, *e.g.*, *Sustained and Controlled Release Drug Delivery Systems*, J. R. Robinson, ed., Marcel Dekker, Inc., New York, 1978.

In an embodiment, the IL-2 agent is orally administered, for example, with an inert diluent or an assimilable edible carrier. The IL-2 agent (and other ingredients, if desired) may also be enclosed in a hard or soft shell gelatin capsule, compressed into tablets, or incorporated directly into the subject's diet. For oral therapeutic administration, the IL-2 agent may be incorporated with excipients and used in the form of ingestible tablets, buccal tablets, troches, capsules, elixirs, suspensions, syrups, wafers, and the like. To administer an IL-2 agent by other than parenteral administration, it may be necessary to coat the compound with, or co-administer the compound with, a material to prevent its inactivation. Therapeutic, prophylactic, or diagnostic compositions can also be administered with medical devices, and several are known in the art.

Dosage regimens are adjusted to provide the desired response (*e.g.*, a therapeutic, prophylactic, or diagnostic response). For example, a single bolus may be administered, several divided doses may be administered over time or the dose may be proportionally reduced or increased as indicated by the exigencies of the therapeutic situation. It is especially advantageous to formulate parenteral compositions in dosage unit form for ease of administration and uniformity of dosage. Dosage unit form as used herein refers to physically discrete units suited as unitary dosages for the subjects to be treated; each unit contains a predetermined quantity of active compound calculated to produce the desired therapeutic effect in association with the required pharmaceutical carrier. The specification for the dosage unit forms are dictated by and directly dependent on (a) the unique characteristics of the antibody molecule and the particular therapeutic, prophylactic, or diagnostic effect to be achieved, and (b) the limitations inherent in the art of compounding such an antibody molecule for the treatment of sensitivity in individuals.

An exemplary, non-limiting range for a therapeutically, prophylactically, or diagnostically effective amount of an IL-2 agent is about 0.1-50 mg/kg, *e.g.*, about 0.1-30 mg/kg, *e.g.*, about 1-30, 1-15, 1-10, 1-5, 5-10, or 1-3 mg/kg, *e.g.*, about 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 30, 40, or 50 mg/kg. The IL-2 agent can be administered by intravenous infusion at a rate of less than 10 mg/min, *e.g.*, less than or equal to 5 mg/min to reach a dose of about 1 to 100 mg/m², *e.g.*, about 5 to 50 mg/m², about 7 to 25 mg/m², *e.g.*, about 10 mg/m². It is to be noted that dosage values may vary with the type and severity of the condition to be alleviated. It is to be further understood that for any particular subject, specific dosage regimens should be adjusted over time according to the individual need and the professional judgment of the person administering or supervising the administration of the

compositions, and that dosage ranges set forth herein are exemplary only and are not intended to limit the scope or practice of the claimed compositions.

The pharmaceutical compositions herein may include a “therapeutically effective amount,” “prophylactically effective amount,” or “diagnostically effective amount” of an IL-2 agent described herein.

5 A “therapeutically effective amount” refers to an amount effective, at dosages and for periods of time necessary, to achieve the desired therapeutic result. A therapeutically effective amount of the polypeptide (*e.g.*, antibody molecule or fusion protein) may vary according to factors such as the disease state, age, sex, and weight of the individual, and the ability of the antibody or antibody portion to elicit a desired response in the individual. A therapeutically effective amount is also one in which any toxic or detrimental effect of the antibody molecule is outweighed by the therapeutically beneficial effects. A “therapeutically effective dosage” typically inhibits a measurable parameter by at least about 20%, *e.g.*, by at least about 40%, by at least about 60%, or by at least about 80% relative to untreated subjects. The measurable parameter may vary, *e.g.*, based on the disorder being treated. The ability of an IL-2 agent to inhibit a measurable parameter can be evaluated in an animal model system predictive of efficacy in treating or preventing a disorder described herein. Alternatively, this property of a composition can be evaluated by examining the ability of the IL-2 agent to modulate a biological function of a target molecule or cell, *e.g.*, by an *in vitro* assay.

20 A “prophylactically effective amount” refers to an amount effective, at dosages and for periods of time necessary, to achieve the desired prophylactic result. Typically, since a prophylactic dose is used in subjects prior to or at an earlier stage of disease, the prophylactically effective amount will be less than the therapeutically effective amount.

25 A “diagnostically effective amount” refers to an amount effective, at dosages and for periods of time necessary, to achieve the desired diagnostic result. Typically, a diagnostically effective amount is one in which a disorder, *e.g.*, a disorder described herein, can be diagnosed *in vitro*, *ex vivo*, or *in vivo*.

In an embodiment, the pharmaceutical composition is a good manufacturing practices (GMP)-grade pharmaceutical composition. In an embodiment, a GMP-grade composition can be used as a pharmaceutical product. A “GMP-grade composition,” as that term is used herein, refers to a composition in compliance with current good manufacturing practice (cGMP) guidelines, or other similar requirements. In an embodiment, the pharmaceutical composition has greater than 99% purity, *e.g.*, greater than 99.5%, 99.8%, or 99.9% purity. In an embodiment, greater than 50%, 60%, 70%, 80%, 90%, 95%, 98%, or 99% of the contaminants in the pharmaceutical composition are removed. In an embodiment, the pharmaceutical composition is in large scale, *e.g.*, at least 20g, 30g, 40g, 50g, 100g, 200g, 300g, 400g, 500g, 600g, 700g, 800g, 900g, 1000g, or more.

The disclosure also provides kits that comprise IL-2 agents described herein. The kits can include one or more other elements including: instructions for use; other reagents, *e.g.*, a label, a

therapeutic agent, or an agent useful for chelating, or otherwise coupling, an antibody molecule coupled to a label or therapeutic agent, or a radioprotective composition; devices or other materials for preparing the IL-2 agent for administration; pharmaceutically acceptable carriers; and devices or other materials for administration to a subject.

5

Nucleic Acids

The present disclosure also provides nucleic acids comprising a nucleotide sequence that encodes an IL-2 agent described herein.

10 In an embodiment, the nucleic acid comprises a nucleotide sequence encoding an amino acid sequence of an IL-2 variant described herein, or a nucleotide sequence substantially identical thereto (*e.g.*, a sequence at least about 85%, 90%, 95%, 99% or more identical thereto, and/or capable of hybridizing under the stringency conditions described herein). In an embodiment, the nucleic acid comprises a nucleotide sequence encoding an IL-2 variant comprising one or more of the mutations described herein.

15 In an embodiment, the nucleic acid further comprises a nucleotide sequence encoding an Fc region, *e.g.*, an Fc region described herein, or having a nucleotide sequence substantially identical thereto (*e.g.*, a sequence at least about 85%, 90%, 95%, 99% or more identical thereto, and/or capable of hybridizing under the stringency conditions described herein). In an embodiment, the Fc region comprises one or more mutations, *e.g.*, one or more mutations described herein. In an embodiment, 20 the nucleic acid comprises from 5' to 3' a nucleotide sequence encoding an IL-2 variant described herein and a nucleotide sequence encoding an Fc region described herein.

In another embodiment, the nucleic acid further comprises a nucleotide sequence encoding a linker, *e.g.*, a linker described herein, or a nucleotide sequence substantially homologous thereto (*e.g.*, a sequence at least about 85%, 90%, 95%, 99% or more identical thereto, and/or capable of 25 hybridizing under the stringency conditions described herein). In an embodiment, the nucleic acid comprises from 5' to 3' a nucleotide sequence encoding an IL-2 variant described herein and a nucleotide sequence encoding a linker described herein. In an embodiment, the nucleic acid comprises from 5' to 3' a nucleotide sequence encoding a linker described herein, and a nucleotide sequence encoding an Fc region described herein.

30 In another embodiment, the nucleic acid comprises a nucleotide sequence encoding an IL-2 fusion protein, *e.g.*, an IL-2 fusion protein described herein, or a nucleotide sequence substantially homologous thereto (*e.g.*, a sequence at least about 85%, 90%, 95%, 99% or more identical thereto, and/or capable of hybridizing under the stringency conditions described herein). In an embodiment, the nucleic acid encoding the IL-2 fusion protein comprises from 5' to 3' a nucleotide sequence 35 encoding an IL-2 variant described herein and a nucleotide sequence encoding an Fc region described herein. In an embodiment, the nucleic acid encoding the IL-2 fusion protein comprises from 5' to 3' a

nucleotide sequence encoding an IL-2 variant described herein, a nucleotide sequence encoding a linker described herein, and a nucleotide sequence encoding an Fc region described herein.

In an embodiment, the nucleic acid comprises a portion of a nucleotide sequence described herein. The portion may encode, for example, one, two, or all of an IL-2 variant, a linker, or an Fc region.

In an embodiment, the nucleic acid comprises a nucleotide sequence encoding an amino acid sequence described in **Table 9**, or a functional fragment thereof. In an embodiment, the nucleic acid comprises a nucleotide sequence described in **Table 10**.

In an embodiment, the nucleic acid comprises a nucleotide sequence encoding the amino acid sequence of any of SEQ ID NOs: 2-38 or 1000-1002, or a functional fragment thereof. In an embodiment, the nucleic acid comprises a nucleotide sequence encoding the amino acid sequence of any of SEQ ID NOs: 56-359 or 1004-1009, or a functional fragment thereof.

In an embodiment, the nucleic acid comprises a nucleotide sequence of any of SEQ ID NOs: 361-398 or 1010-1012, or a nucleotide sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, 30, 35, 40, 45, or 50 nucleotides thereto. In an embodiment, the nucleic acid further comprises a nucleotide sequence of any of SEQ ID NOs: 399-407 or 1013, or a nucleotide sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 nucleotides thereto. In an embodiment, the nucleic acid further comprises a nucleotide sequence of any of SEQ ID NOs: 408-415.

In an embodiment, the nucleic acid comprises a nucleotide sequence of any of SEQ ID NOs: 416-481 or 1014-1019, or a nucleotide sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, or 100 nucleotides thereto. In an embodiment, the nucleic acid comprises a nucleotide sequence of any of SEQ ID NOs: 416-453 or 1014-1019. In an embodiment, the nucleic acid comprises a nucleotide sequence of any of SEQ ID NOs: 454-491. In an embodiment, the nucleic acid comprises a nucleotide sequence of any of SEQ ID NOs: 492-529. In an embodiment, the nucleic acid comprises a nucleotide sequence of any of SEQ ID NOs: 416-453. In an embodiment, the nucleic acid comprises a nucleotide sequence of any of SEQ ID NOs: 454-491. In an embodiment, the nucleic acid comprises a nucleotide sequence of any of SEQ ID NOs: 492-529. In an embodiment, the nucleic acid comprises a nucleotide sequence of any of SEQ ID NOs: 530-567. In an embodiment, the nucleic acid comprises a nucleotide sequence of any of SEQ ID NOs: 568-605. In an embodiment, the nucleic acid comprises a nucleotide sequence of any of SEQ ID NOs: 606-643. In an embodiment, the nucleic acid comprises a nucleotide sequence of any of SEQ ID NOs: 644-681.

In an embodiment, the nucleic acid comprises the nucleotide sequence of any of SEQ ID NOs: 364, 365, 371, or 1010-1012, or a nucleotide sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, 30, 35, 40, 45, or 50 nucleotides thereto. In

5 In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 364. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 365. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 371. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1010. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1011. In an
10 embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1012.

In an embodiment, the nucleic acid further comprises the nucleotide sequence of SEQ ID NO: 1013, or a nucleotide sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, or 30 nucleotides thereto. In an embodiment, the nucleic acid further
15 comprises the nucleotide sequence of SEQ ID NO: 48.

In an embodiment, the nucleic acid comprises the nucleotide sequence of any of SEQ ID NOs: 1014-1017, or a nucleotide sequence with at least 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or more sequence identity thereof, or differing by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, 30, 35, 40, 45, or 50 nucleotides thereto. In an embodiment, the
20 nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1014. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1015. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1016. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1017. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1018. In an embodiment, the nucleic acid
25 comprises the nucleotide sequence of SEQ ID NO: 1019.

In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 364. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 365. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 371. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1010. In an
30 embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1011. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1012. In an embodiment, the nucleic acid further comprises the nucleotide sequence of SEQ ID NO: 1013. In an embodiment, the nucleic acid further comprises the nucleotide sequence of SEQ ID NO: 48. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1014. In an
35 embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1015. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1016. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1017. In an

embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1018. In an embodiment, the nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1019.

The nucleic acids disclosed herein include deoxyribonucleotides or ribonucleotides, or analogs thereof. The polynucleotide may be either single-stranded or double-stranded, and if single-stranded may be the coding strand or non-coding (antisense) strand. A polynucleotide may comprise modified nucleotides, such as methylated nucleotides and nucleotide analogs. The sequence of nucleotides may be interrupted by non-nucleotide components. A polynucleotide may be further modified after polymerization, such as by conjugation with a labeling component. The nucleic acid may be a recombinant polynucleotide, or a polynucleotide of genomic, cDNA, semisynthetic, or synthetic origin which either does not occur in nature or is linked to another polynucleotide in a non-natural arrangement.

In an aspect, the disclosure features host cells and vectors comprising the nucleic acids described herein. The nucleic acids may be present in a single vector or separate vectors present in the same host cell or separate host cell, as described in more detail below.

In an aspect, the disclosure features methods of treating a disorder (*e.g.*, a disorder described herein) comprising administering to a subject in need thereof an effective amount of a nucleic acid described herein.

Vectors

The present disclosure features vectors that comprises a nucleotide sequence encoding an IL-2 agent described herein. In an embodiment, the vector comprises a nucleic acid described herein (*e.g.*, in **Table 10**).

In an embodiment, the vector comprises a nucleotide sequence encoding an amino acid sequence of an IL-2 variant described herein (*e.g.*, in **Table 9**), or a nucleotide sequence substantially identical thereto (*e.g.*, a sequence at least about 85%, 90%, 95%, 99% or more identical thereto, and/or capable of hybridizing under the stringency conditions described herein). In an embodiment, the vector comprises a nucleotide sequence encoding an IL-2 variant comprising one or more of the mutations described herein.

In an embodiment, the vector further comprises a nucleotide sequence encoding an Fc region, *e.g.*, an Fc region described herein, or having a nucleotide sequence substantially identical thereto (*e.g.*, a sequence at least about 85%, 90%, 95%, 99% or more identical thereto, and/or capable of hybridizing under the stringency conditions described herein). In an embodiment, the Fc region comprises one or more mutations, *e.g.*, one or more mutations described herein. In an embodiment, the vector comprises from 5' to 3' a nucleotide sequence encoding an IL-2 variant described herein and a nucleotide sequence encoding an Fc region described herein.

In another embodiment, the vector further comprises a nucleotide sequence encoding a linker, *e.g.*, a linker described herein, or a nucleotide sequence substantially homologous thereto (*e.g.*, a

sequence at least about 85%, 90%, 95%, 99% or more identical thereto, and/or capable of hybridizing under the stringency conditions described herein). In an embodiment, the vector comprises from 5' to 3' a nucleotide sequence encoding an IL-2 variant described herein and a nucleotide sequence encoding a linker described herein. In an embodiment, the vector comprises from 5' to 3' a
5 nucleotide sequence encoding a linker described herein, and a nucleotide sequence encoding an Fc region described herein.

In another embodiment, the vector comprises a nucleotide sequence encoding an IL-2 fusion protein, *e.g.*, an IL-2 fusion protein described herein, or a nucleotide sequence substantially homologous thereto (*e.g.*, a sequence at least about 85%, 90%, 95%, 99% or more identical thereto, and/or capable of hybridizing under the stringency conditions described herein). In an embodiment,
10 the vector encoding the IL-2 fusion protein comprises from 5' to 3' a nucleotide sequence encoding an IL-2 variant described herein and a nucleotide sequence encoding an Fc region described herein. In an embodiment, the vector encoding the IL-2 fusion protein comprises from 5' to 3' a nucleotide sequence encoding an IL-2 variant described herein, a nucleotide sequence encoding a linker
15 described herein, and a nucleotide sequence encoding an Fc region described herein.

In an embodiment, the vector further comprises a nucleotide sequence encoding a heavy chain variable region of an anti-IL-2 antibody molecule, *e.g.*, an anti-IL-2 antibody molecule described herein. In an embodiment, the vector further comprises a nucleotide sequence encoding a light chain variable region of an anti-IL-2 antibody molecule, *e.g.*, an anti-IL-2 antibody molecule described
20 herein. In yet another embodiment, the vector further comprises a nucleotide sequence encoding a heavy chain variable region and a light chain variable region of an anti-IL-2 antibody molecule, *e.g.*, an anti-IL-2 antibody molecule described herein.

In an embodiment, the vector further comprises a nucleotide sequence encoding at least one, two, or three CDRs from a heavy chain variable region of an anti-IL-2 antibody molecule, *e.g.*, an anti-IL-2 antibody molecule described herein. In another embodiment, the vector further comprises a
25 nucleotide sequence encoding at least one, two, or three CDRs from a light chain variable region of an anti-IL-2 antibody molecule, *e.g.*, an anti-IL-2 antibody molecule described herein. In yet another embodiment, the vector comprises a nucleotide sequence encoding at least one, two, three, four, five, or six CDRs from heavy and light chain variable regions of an anti-IL-2 antibody molecule, *e.g.*, an
30 anti-IL-2 antibody molecule described herein.

In an embodiment, the vector comprises a portion of a nucleotide sequence described herein. The portion may encode, for example, an IL-2 variant; a linker; an Fc region; a variable region (*e.g.*, VH or VL); one, two, or three or more (*e.g.*, four, five, or six) CDRs; or one, two, three, or four or more framework regions.

35 The vectors include, but are not limited to, a virus, plasmid, cosmid, lambda phage or a yeast artificial chromosome (YAC).

Numerous vector systems can be employed. For example, one class of vectors utilizes DNA elements which are derived from animal viruses such as, for example, bovine papilloma virus, polyoma virus, adenovirus, vaccinia virus, baculovirus, retroviruses (Rous Sarcoma Virus, MMTV or MOMLV) or SV40 virus. Another class of vectors utilizes RNA elements derived from RNA viruses
5 such as Semliki Forest virus, Eastern Equine Encephalitis virus and Flaviviruses.

Additionally, cells which have stably integrated the DNA into their chromosomes may be selected by introducing one or more markers which allow for the selection of transfected host cells. The marker may provide, for example, prototrophy to an auxotrophic host, biocide resistance (*e.g.*, antibiotics), or resistance to heavy metals such as copper, or the like. The selectable marker gene can
10 be either directly linked to the DNA sequences to be expressed or introduced into the same cell by cotransformation. Additional elements may also be needed for optimal synthesis of mRNA. These elements may include splice signals, as well as transcriptional promoters, enhancers, and termination signals.

Once the expression vector or DNA sequence containing the constructs has been prepared for
15 expression, the expression vectors may be transfected or introduced into an appropriate host cell. Various techniques may be employed to achieve this, such as, for example, protoplast fusion, calcium phosphate precipitation, electroporation, retroviral transduction, viral transfection, gene gun, lipid based transfection or other conventional techniques. In the case of protoplast fusion, the cells are grown in media and screened for the appropriate activity.

20 Methods and conditions for culturing the resulting transfected cells and for recovering the polypeptides (*e.g.*, IL-2 variants or IL-2 fusion proteins) produced are known to those skilled in the art and may be varied or optimized depending upon the specific expression vector and mammalian host cell employed, based upon the present description.

25 Cells

The present disclosure also provides cells comprising a nucleic acid or vector encoding an IL-2 agent described herein.

In an embodiment, the cell is a host cell. For example, the host cell can comprise an IL-2 agent engineered in accordance with a method described herein. In an embodiment, the cell is an
30 isolated cell. In an embodiment, the cell is a cultured cell.

In an embodiment, the cell comprises a nucleic acid comprising a nucleotide sequence encoding an IL-2 agent described herein (*e.g.*, in **Table 10**), a nucleotide sequence substantially homologous thereto (*e.g.*, a sequence at least about 85%, 90%, 95%, 99% or more identical thereto, and/or capable of hybridizing under the stringency conditions described herein), or a portion of the
35 aforesaid nucleic acid. In an embodiment, the cell comprises a vector comprising a nucleotide sequence encoding an IL-2 agent described herein, a nucleotide sequence substantially homologous

thereto (*e.g.*, a sequence at least about 85%, 90%, 95%, 99% or more identical thereto, and/or capable of hybridizing under the stringency conditions described herein), or a portion of the aforesaid vector.

In an embodiment, the cell is genetically engineered to comprise a nucleic acid or vector encoding an IL-2 agent described herein. In an embodiment, the host cells are genetically engineered by using an expression cassette. The phrase “expression cassette,” refers to nucleotide sequences, which are capable of affecting expression of a gene in hosts compatible with such sequences. Such cassettes may include a promoter, an open reading frame with or without introns, and a termination signal. Additional factors necessary or helpful in effecting expression may also be used, for example, an inducible promoter.

The cell can be, but is not limited to, a eukaryotic cell, a bacterial cell, an insect cell, or a human cell. Suitable eukaryotic cells include, but are not limited to, Vero cells, HeLa cells, COS cells, CHO cells, HEK293 cells, BHK cells and MDCKII cells. Suitable insect cells include, but are not limited to, Sf9 cells.

15 Uses of IL-2 agents

The IL-2 agents (*e.g.*, IL-2 variants, fusion polypeptides, complexes, or immunoconjugates) described herein, as well as the compositions described herein and the nucleic acids described herein, have *in vitro*, *ex vivo*, and *in vivo* therapeutic, prophylactic, and/or diagnostic utilities.

In an embodiment, the IL-2 agent modulates (*e.g.*, reduces (*e.g.*, inhibits, blocks, or neutralizes) or increases (*e.g.*, activates, initiates, or enhances)) one or more biological activities associated with IL-2. For example, these IL-2 agents can be administered to cells in culture, *in vitro* or *ex vivo*, or to a subject, *e.g.*, a human subject, *e.g.*, *in vivo*, to modulate one or more biological activities associated with IL-2. Accordingly, in an aspect, the disclosure provides a method of treating, preventing, or diagnosing a disorder, *e.g.*, a disorder described herein, in a subject, comprising administering to the subject an IL-2 agent described herein, such that the disorder is treated, prevented, or diagnosed. For example, the disclosure provides a method comprising contacting the IL-2 agent described herein with cells in culture, *e.g.*, *in vitro* or *ex vivo*, or administering the IL-2 agent described herein to a subject, *e.g.*, *in vivo*, to treat, prevent, or diagnose a disorder, *e.g.*, a disorder associated with IL-2 (*e.g.*, a disorder described herein).

As used herein, the term “subject” is intended to include human and non-human animals. In an embodiment, the subject is a human subject, *e.g.*, a human patient having a disorder described herein, or at risk of having a disorder described herein. The term “non-human animals” includes mammals and non-mammals, such as non-human primates. In an embodiment, the subject is a human. The methods and compositions described herein are suitable for treating human patients for a disorder described herein. Patients having a disorder described herein include those who have developed a disorder described herein but are (at least temporarily) asymptomatic, patients who have

exhibited a symptom of a disorder described herein, or patients having a disorder related to or associated with a disorder described herein.

Without wishing to be bound by theory, it is believed that in an embodiment, the IL-2 agents described herein selectively stimulate regulatory T cells (Tregs). For example, the IL-2 agents described herein can promote the proliferation, survival, activation, and/or function of CD3+FoxP3+ T cells over CD3+FoxP3- T cells. Methods of measuring the ability to selectively stimulate Tregs can be measured by flow cytometry of peripheral blood leukocytes, in which there is an observed increase in the percentage of FOXP3+CD4+ T cells among total CD4+ T cells, an increase in percentage of FOXP3+CD8+ T cells among total CD8+ T cells, an increase in percentage of FOXP3+ T cells relative to NK cells, and/or a greater increase in the expression level of CD25 on the surface of FOXP3+ T cells relative to the increase of CD25 expression on other T cells. Preferential growth of Treg cells can also be detected as increased representation of demethylated FOXP3 promoter DNA (i.e. the Treg-specific demethylated region, or TSDR) relative to demethylated CD3 genes in DNA extracted from whole blood, as detected by sequencing of polymerase chain reaction (PCR) products from bisulfite-treated genomic DNA (J. Schouli, et al. 2011. Epigenetics 6:2, 236-246). Without wishing to be bound by theory, it is believed that in an embodiment, the IL-2 agents described agents can achieve immune modulation through selective activation of regulatory T cells, resulting in T reg stimulation with minimal effect on T effector and NK cells. The IL-2 agents described herein are particularly suitable for treating autoimmune and inflammatory diseases, *e.g.*, primarily mediated by Effector T cell activation (*e.g.*, systemic lupus erythematosus, lupus nephritis, autoimmune hepatitis, psoriasis, nephrotic syndrome, immune-mediated focal segmented glomerulosclerosis, and alopecia areata). In an embodiment, the IL-2 agent results in immune modulation without immunosuppression, which is highly desired in an IL-2 therapy.

In an aspect, the disclosure provides a method of increasing the ratio of regulatory T cells (Tregs) to non-regulatory T cells (non-Tregs) within a population of T cells, comprising contacting the population of T cells with an effective amount of an IL-2 agent described herein.

In an embodiment, the IL-2 agent selectively increases the ratio of Tregs over non-Tregs by about 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more, or about 2, 3, 4, 5, 6, 7, 8, 9, 10-fold or more. In an embodiment, the IL-2 agent selectively increases the ratio of CD3+FoxP3+ cells to CD3+FoxP3- cells by about 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more, or about 2, 3, 4, 5, 6, 7, 8, 9, 10-fold or more.

In an aspect, the disclosure provides a method of increasing the ratio of regulatory T cells (Tregs) to non-regulatory T cells (non-Tregs) in a subject (*e.g.*, in the peripheral blood of a subject), comprising contacting the subject or sample with an effective amount of an IL-2 agent described herein.

In an embodiment, the IL-2 agent selectively increases the ratio of Tregs over non-Tregs in the subject, or in a sample (*e.g.*, a peripheral blood sample) from the subject, by about 20%, 30%,

40%, 50%, 60%, 70%, 80%, 90%, 100%, or more, or about 2, 3, 4, 5, 6, 7, 8, 9, 10-fold or more. In an embodiment, the IL-2 agent selectively increases the ratio of CD3+FoxP3+ cells to CD3+FoxP3- cells in the subject, or in a sample (*e.g.*, a peripheral blood sample) from the subject, by about 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more, or about 2, 3, 4, 5, 6, 7, 8, 9, 10-fold or more.

5 In an aspect, the disclosure provides a method of increasing the ratio of regulatory T cells (Tregs) to natural killer cells (NKs) in a subject (*e.g.*, in the peripheral blood of a subject), comprising contacting the subject or sample with an effective amount of an IL-2 agent described herein.

In an embodiment, the IL-2 agent selectively increases the ratio of Tregs over NKs in the subject, or in a sample (*e.g.*, a peripheral blood sample) from the subject, by about 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more, or about 2, 3, 4, 5, 6, 7, 8, 9, 10-fold or more. In an embodiment, the IL-2 agent selectively increases the ratio of CD3+FoxP3+ cells to CD3-CD19- lymphocytes expressing CD56 and/or CD16 in the subject, or in a sample (*e.g.*, a peripheral blood sample) from the subject, by about 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, or more, or about 2, 3, 4, 5, 6, 7, 8, 9, 10-fold or more.

15

Methods of Treating or Preventing Disorders

The IL-2 agents (*e.g.*, IL-2 variants, fusion polypeptides, complexes, or immunoconjugates) described herein, as well as the pharmaceutical compositions disclosed herein and the nucleic acids described herein, can be used to treat or prevent various disorders or conditions.

20 In an embodiment, the disorder is an immune disorder, *e.g.*, an autoimmune disease. In an embodiment, the disorder is a cancer. In an embodiment, the disorder is an infectious disease.

The IL-2 agents described herein can have an optimal or improved half-life, which can be desirable for treating or preventing a wide range of disorders or conditions. While not wishing to be bound by theory, it is believed that in an embodiment, the IL-2 agents described herein can provide one or more benefits over another IL-2 agent having the same or similar binding affinity and/or specificity (*e.g.*, an IL-2 agent that does not have, or has not been engineered to have, an optimal or improved half-life). These benefits can include, but are not limited to, an increased therapeutic or preventive efficacy, a reduced dosage regimen, or an improved pharmacokinetic property. In an embodiment, the IL-2 includes a mutated Fc region as described herein.

30 In an embodiment, the ratio of regulatory T cells (Tregs) to non-regulatory T cells within the subject (*e.g.*, in the peripheral blood of the subject) increases after the administration. In an embodiment, the ratio of regulatory T cells (Tregs) to non-regulatory T cells within the subject (*e.g.*, in the peripheral blood of the subject) remains essentially the same after the administration. In an embodiment, the method further comprises identifying a subject who needs an increased level of Tregs. In an embodiment, the method further comprises determining the level of Tregs in the subject prior to and/or after the administration.

Exemplary immune disorders or conditions that can be treated or prevented by the IL-2 agents described herein include, but are not limited to, Addison's disease, agammaglobulinemia, alopecia areata, amyloidosis, ankylosing spondylitis, anti-GBM/anti-TBM nephritis, antiphospholipid syndrome (APS), autoimmune hepatitis, autoimmune inner ear disease (AIED), axonal & neuronal

5 neuropathy (AMAN), Behcet's disease, Bullous pemphigoid, Castleman disease (CD), Celiac disease, Chagas disease, chronic inflammatory demyelinating polyneuropathy (CIDP), chronic recurrent multifocal osteomyelitis (CRMO), Churg-Strauss, Cicatricial pemphigoid/benign mucosal pemphigoid, Cogan's syndrome, Cold agglutinin disease, Congenital heart block, Cocksackie myocarditis, CREST syndrome, Crohn's disease, dermatitis herpetiformis, dermatomyositis, Devic's

10 disease (neuromyelitis optica), Discoid lupus, Dressler's syndrome, endometriosis, eosinophilic esophagitis (EoE), eosinophilic fasciitis, erythema nodosum, essential mixed cryoglobulinemia, Evans syndrome, fibromyalgia, fibrosing alveolitis, focal segmented glomerulosclerosis (FSGS) (e.g., immune-mediated FSGS (IM-FSGS)), giant cell arteritis (temporal arteritis), giant cell myocarditis, Glomerulonephritis, Goodpasture's syndrome, Granulomatosis with Polyangiitis, Graft-versus-host

15 disease (GvHD), Graves' disease, Guillain-Barre syndrome, Hashimoto's thyroiditis, hemolytic anemia, Henoch-Schonlein purpura (HSP), herpes gestationis or pemphigoid gestationis (PG), hypogammaglobulinemia, IgA nephropathy, IgG4-related sclerosing disease, inclusion body myositis (IBM), interstitial cystitis (IC), juvenile arthritis, juvenile diabetes (Type 1 diabetes), juvenile myositis (JM), Kawasaki disease, Lambert-Eaton syndrome, leukocytoclastic vasculitis, Lichen

20 planus, Lichen sclerosus, Ligneous conjunctivitis, linear IgA disease (LAD), lupus (e.g., systemic lupus erythematosus (SLE) or lupus nephritis), Lyme disease chronic, Membranous neuropathy, Meniere's disease, microscopic polyangiitis (MPA), mixed connective tissue disease (MCTD), Mooren's ulcer, Mucha-Habermann disease, multiple sclerosis (MS), Myasthenia gravis, Myositis, Narcolepsy, nephrotic syndrome, Neuromyelitis optica, neutropenia, ocular cicatricial pemphigoid,

25 optic neuritis, palindromic rheumatism (PR), PANDAS (Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcus), paraneoplastic cerebellar degeneration (PCD), Paroxysmal nocturnal hemoglobinuria (PNH), Parry Romberg syndrome, Pars planitis (peripheral uveitis), Parsonnage-Turner syndrome, Pemphigus, peripheral neuropathy, Perivenous encephalomyelitis, pernicious anemia (PA), POEMS syndrome (polyneuropathy, organomegaly, endocrinopathy,

30 monoclonal gammopathy, skin changes), polyarteritis nodosa, polymyalgia rheumatica, polymyositis, postmyocardial infarction syndrome, postpericardiotomy syndrome, primary biliary cirrhosis, primary sclerosing cholangitis, progesterone dermatitis, psoriasis, psoriatic arthritis, pure red cell aplasia (PRCA), pyoderma gangrenosum, Raynaud's phenomenon, Reactive Arthritis, Reflex sympathetic dystrophy, Reiter's syndrome, relapsing polychondritis, restless legs syndrome (RLS), retroperitoneal fibrosis, rheumatic fever, rheumatoid arthritis (RA), sarcoidosis, Schmidt syndrome, scleritis,

35 scleroderma, Sjogren's syndrome, sperm & testicular autoimmunity, Stiff person syndrome (SPS), subacute bacterial endocarditis (SBE), Susac's syndrome, sympathetic ophthalmia (SO), Takayasu's

arteritis, temporal arteritis/Giant cell arteritis, thrombocytopenic purpura (TTP), Tolosa-Hunt syndrome (THS), transverse myelitis, type 1 diabetes, ulcerative colitis (UC), undifferentiated connective tissue disease (UCTD), uveitis, vasculitis, vitiligo, or Wegener's granulomatosis (Granulomatosis with Polyangiitis (GPA)).

5 In an embodiment, the disorder that can be treated or prevented by the IL-2 agents described herein is lupus nephritis. In an embodiment, the disorder that can be treated or prevented by the IL-2 agents described herein is autoimmune hepatitis. In an embodiment, the disorder that can be treated or prevented by the IL-2 agents described herein is nephrotic syndrome. In an embodiment, the disorder that can be treated or prevented by the IL-2 agents described herein is psoriasis. In an
10 embodiment, the disorder that can be treated or prevented by the IL-2 agents described herein is systemic lupus erythematosus (SLE). In an embodiment, the disorder that can be treated or prevented by the IL-2 agents described herein is focal segmented glomerulosclerosis (FSGS), e.g., immune-mediated FSGS (IM-FSGS). In an embodiment, the disorder that can be treated or prevented by the IL-2 agents described herein is alopecia areata (AA).

15 Exemplary disorders or conditions that can be treated or prevented by the IL-2 agents described herein include, but are not limited to, a cancer (e.g., a solid tumor or a hematologic cancer), an infectious disease (e.g., a bacterial infection or a viral infection), an immune disorder (e.g., an autoimmune disease), or an organ transplant rejection (e.g., graft-versus-host disease (GvHD)). In an embodiment, the disorder is a chronic disorder.

20 Exemplary cancers that can be treated or prevented by the IL-2 agents described herein include, but are not limited to, acute lymphoblastic leukemia (ALL), acute myeloid leukemia (AML), adrenocortical carcinoma, Kaposi sarcoma, an AIDS-related lymphoma, primary central nervous system (CNS) lymphoma, anal cancer, appendix cancer, astrocytoma, atypical teratoid/rhabdoid tumor, basal cell carcinoma, bile duct cancer, bladder cancer, bone cancer (e.g., Ewing sarcoma or
25 osteosarcoma and malignant fibrous histiocytoma), brain tumor (e.g., astrocytomas, brain stem glioma, central nervous system atypical teratoid/rhabdoid tumor, central nervous system embryonal tumor, central nervous system germ cell tumor, craniopharyngioma, or ependymoma), breast cancer, bronchial tumor, Burkitt lymphoma, carcinoid tumor (e.g., gastrointestinal carcinoid tumor), cardiac (heart) tumor, embryonal tumor, germ cell tumor, lymphoma, cervical cancer, cholangiocarcinoma, chordoma, chronic lymphocytic leukemia (CLL), chronic myelogenous leukemia (CML), chronic myeloproliferative neoplasm, colon cancer, colorectal cancer, craniopharyngioma, cutaneous T-cell lymphoma, ductal carcinoma *in situ* (DCIS), endometrial cancer, ependymoma, esophageal cancer, esthesioneuroblastoma, Ewing sarcoma, extracranial germ cell tumor, extragonadal germ cell tumor, eye cancer (e.g., intraocular melanoma or retinoblastoma), fallopian tube cancer, fibrous histiocytoma
30 of bone, osteosarcoma, gallbladder cancer, gastric (stomach) cancer, gastrointestinal carcinoid tumor, gastrointestinal stromal tumors (GIST), germ cell tumor (e.g., central nervous system tumor, extracranial tumor, extragonadal tumor, ovarian cancer, or testicular cancer), gestational trophoblastic

- disease, glioma, hairy cell leukemia, head and neck cancer, hepatocellular (liver) cancer, Hodgkin lymphoma, hypopharyngeal cancer, intraocular melanoma, islet cell tumor, pancreatic neuroendocrine tumor, Kaposi sarcoma, kidney cancer (*e.g.*, renal cell cancer or Wilms tumor), Langerhans cell histiocytosis (LCH), laryngeal cancer, leukemia (*e.g.*, acute lymphoblastic leukemia (ALL), acute myeloid leukemia (AML), chronic lymphocytic leukemia (CLL), chronic myelogenous leukemia (CML), or hairy cell leukemia), lip and oral cavity cancer, liver cancer, lung cancer (*e.g.*, non-small cell lung cancer (NSCLC) or small cell lung cancer), lymphoma (*e.g.*, aids-related, Burkitt lymphoma, cutaneous T-cell lymphoma, Hodgkin lymphoma, non-Hodgkin lymphoma, or primary central nervous system (CNS) lymphoma), Waldenström macroglobulinemia, male breast cancer, malignant fibrous histiocytoma of bone and osteosarcoma, melanoma (*e.g.*, intraocular (eye) melanoma), Merkel cell carcinoma, mesothelioma, metastatic squamous neck cancer, midline tract carcinoma, mouth cancer, multiple endocrine neoplasia syndrome, multiple myeloma/plasma cell neoplasm, mycosis fungoides, myelodysplastic syndrome, myelodysplastic/myeloproliferative neoplasm, chronic myeloproliferative neoplasm, nasal cavity and paranasal sinus cancer, nasopharyngeal cancer,
- 15 neuroblastoma, oral cancer, lip and oral cavity cancer, oropharyngeal cancer, osteosarcoma and malignant fibrous histiocytoma of bone, ovarian cancer (*e.g.*, epithelial ovarian cancer or germ cell ovarian tumor), pancreatic cancer, pancreatic neuroendocrine tumors (islet cell tumors), papillomatosis, paraganglioma, paranasal sinus and nasal cavity cancer, parathyroid cancer, penile cancer, pharyngeal cancer, pheochromocytoma, pituitary tumor, pleuropulmonary blastoma,
- 20 peritoneal cancer, prostate cancer, rectal cancer, retinoblastoma, rhabdomyosarcoma, salivary gland cancer, sarcoma (*e.g.*, Ewing sarcoma, Kaposi sarcoma, osteosarcoma, rhabdomyosarcoma, soft tissue sarcoma, or uterine sarcoma), Sézary syndrome, skin cancer (*e.g.*, melanoma, Merkel cell carcinoma, or nonmelanoma skin cancer), small intestine cancer, squamous cell carcinoma, testicular cancer, throat cancer, thymoma and thymic carcinoma, thyroid cancer, transitional cell cancer of the renal
- 25 pelvis and ureter, urethral cancer, endometrial uterine cancer, vaginal cancer, vulvar cancer, or a metastatic lesion thereof.

- Exemplary infectious diseases that can be treated or prevented by the IL-2 agents described herein include, but are not limited to, Acinetobacter infections, actinomycosis, African sleeping sickness (African trypanosomiasis), AIDS (acquired immunodeficiency syndrome), amebiasis,
- 30 anaplasmosis, angiostrongyliasis, anisakiasis, anthrax, arcanobacterium haemolyticum infection, argentine hemorrhagic fever, ascariasis, aspergillosis, astrovirus infection, babesiosis, bacillus cereus infection, bacterial pneumonia, bacterial vaginosis, bacteroides infection, balantidiasis, bartonellosis, baylisascaris infection, bk virus infection, black piedra, blastocystosis, blastomycosis, bolivian hemorrhagic fever, botulism (and infant botulism), brazilian hemorrhagic fever, brucellosis,
- 35 bubonic plague, burkholderia infection, buruli ulcer, calicivirus infection (norovirus and sapovirus), campylobacteriosis, candidiasis (moniliasis; thrush), capillariasis, carrion's disease, cat-scratch disease, cellulitis, chagas disease (american trypanosomiasis), chancroid, chickenpox, chikungunya,

- chlamydia, chlamydothyla pneumoniae infection (taiwan acute respiratory agent or twar), cholera, chromoblastomycosis, chytridiomycosis, clonorchiasis, clostridium difficile colitis, coccidioidomycosis, colorado tick fever (CTF), common cold (Acute viral rhinopharyngitis; Acute coryza), Creutzfeldt-Jakob disease (CJD), Crimean-Congo hemorrhagic fever (CCHF),
- 5 cryptococcosis, cryptosporidiosis, cutaneous larva migrans (CLM), cyclosporiasis, cysticercosis, cytomegalovirus infection, dengue fever, desmodermis infection, dientamoebiasis, diphtheria, diphyllorhynchiasis, dracunculiasis, ebola hemorrhagic fever, echinococcosis, ehrlichiosis, enterobiasis (pinworm infection), enterococcus infection, enterovirus infection, epidemic typhus, erythema infectiosum (fifth disease), exanthema subitum (sixth disease), fascioliasis, fasciolopsiasis,
- 10 fatal familial insomnia (FFI), filariasis, food poisoning by clostridium perfringens, free-living amebic infection, fusobacterium infection, gas gangrene (clostridial myonecrosis), geotrichosis, gerstmann-sträussler-scheinker syndrome (GSS), giardiasis, glanders, gnathostomiasis, gonorrhea, granuloma inguinale (donovanosis), Group A streptococcal infection, Group B streptococcal infection, haemophilus influenzae infection, hand, foot and mouth disease (HFMD), Hantavirus Pulmonary
- 15 Syndrome (HPS), heartland virus disease, helicobacter pylori infection, hemolytic-uremic syndrome (HUS), hemorrhagic fever with renal syndrome (HFRS), hepatitis A, hepatitis B, hepatitis C, hepatitis D, hepatitis E, herpes simplex, histoplasmosis, hookworm infection, human bocavirus infection, human ewingii ehrlichiosis, human granulocytic anaplasmosis (HGA), human metapneumovirus infection, Human monocytic ehrlichiosis, human papillomavirus (HPV) infection,
- 20 Human parainfluenza virus infection, Hymenolepiasis, Epstein-Barr Virus Infectious Mononucleosis (Mono), influenza (flu), isosporiasis, kawasaki disease, keratitis, kingella kingae infection, kuru, lassa fever, legionellosis (legionnaires' disease), legionellosis (pontiac fever), leishmaniasis, leprosy, leptospirosis, listeriosis, lyme disease (lyme borreliosis), lymphatic filariasis (Elephantiasis), Lymphocytic choriomeningitis, Malaria, Marburg hemorrhagic
- 25 fever (MHF), Measles, Middle East respiratory syndrome (MERS), melioidosis (Whitmore's disease), meningitis, meningococcal disease, metagonimiasis, microsporidiosis, molluscum contagiosum (MC), Monkeypox, Mumps, Murine typhus (Endemic typhus), Mycoplasma pneumonia, Mycetoma (disambiguation), Myiasis, Neonatal conjunctivitis (Ophthalmia neonatorum), (New) Variant Creutzfeldt-Jakob disease (vCJD, nvCJD), nocardiosis, onchocerciasis (River blindness),
- 30 opisthorchiasis, paracoccidioidomycosis (South American blastomycosis), paragonimiasis, pasteurellosis, pediculosis capitis (head lice), pediculosis corporis (body lice), pediculosis pubis (pubic lice, crab lice), pelvic inflammatory disease (PID), pertussis (Whooping cough), plague, pneumococcal infection, pneumocystis pneumonia (PCP), pneumonia, poliomyelitis, prevotella infection, primary amoebic meningoencephalitis (PAM), progressive multifocal
- 35 leukoencephalopathy, psittacosis, Q fever, rabies, relapsing fever, respiratory syncytial virus infection, rhinosporidiosis, rhinovirus infection, rickettsial infection, rickettsialpox, Rift Valley fever (RVF), Rocky Mountain spotted fever (RMSF), rotavirus infection, rubella, salmonellosis,

SARS (Severe Acute Respiratory Syndrome), scabies, schistosomiasis, sepsis, shigellosis (Bacillary dysentery), shingles (Herpes zoster), smallpox (Variola), sporotrichosis, staphylococcal food poisoning, staphylococcal infection, strongyloidiasis, subacute sclerosing panencephalitis, syphilis, Taeniasis, Tetanus (Lockjaw), Tinea barbae (Barber's itch), Tinea capitis (Ringworm of the Scalp),

5 Tinea corporis (Ringworm of the Body), Tinea cruris (Jock itch), Tinea manum (Ringworm of the Hand), Tinea nigra, Tinea pedis (Athlete's foot), Tinea unguium (Onychomycosis), Tinea versicolor (Pityriasis versicolor), Toxocariasis (Ocular Larva Migrans (OLM)), Toxocariasis (Visceral Larva Migrans (VLM)), Trachoma, Toxoplasmosis, Trichinosis, Trichomoniasis, Trichuriasis (Whipworm infection), Tuberculosis, Tularemia, Typhoid fever, Typhus fever,

10 Ureaplasma urealyticum infection, Valley fever, Venezuelan equine encephalitis, Venezuelan hemorrhagic fever, Vibrio vulnificus infection, Vibrio parahaemolyticus enteritis, viral pneumonia, West Nile Fever, white piedra (Tinea blanca), Yersinia pseudotuberculosis infection, yersiniosis, yellow fever, Zika fever, or zygomycosis.

The IL-2 agents described herein are typically administered at a frequency that keeps a

15 therapeutically effective level of IL-2 agents in the patient's system until the patient recovers. For example, the IL-2 agents may be administered at a frequency that achieves a serum concentration sufficient for at least about 1, 2, 5, 10, 20, 30, or 40 agents to bind each target molecule or cell. In an embodiment, the IL-2 agent is administered every 1, 2, 3, 4, 5, 6, or 7 days, every 1, 2, 3, 4, 5, or 6 weeks, or every 1, 2, 3, 4, 5, or 6 months. In an embodiment, the IL-2 agent is administered once a

20 month. In an embodiment, the IL-2 agent is administered once a week.

Methods of administering various agents (*e.g.*, antibody molecules or fusion proteins) are known in the art and are described below. Suitable dosages of the agents used will depend on the age and weight of the subject and the particular drug used.

In an embodiment, the ratio of regulatory T cells (Tregs) to non-regulatory T cells within the

25 subject (*e.g.*, in the peripheral blood of the subject) increases after the administration. In an embodiment, the ratio of regulatory T cells (Tregs) to non-regulatory T cells within the subject (*e.g.*, in the peripheral blood of the subject) remains essentially the same after the administration.

The IL-2 agents can be used by themselves or conjugated to a second agent, *e.g.*, a protein, *e.g.*, an antibody molecule, a polymer (*e.g.*, polyethylene glycol (PEG)), or a cytokine. In an

30 embodiment, the second agent comprises a second IL-2 agent. This method includes: administering the IL-2 agent, alone or conjugated to a second agent, to a subject requiring such treatment.

Systemic Lupus Erythematosus

The IL-2 agents (*e.g.*, IL-2 variants, IL-2 fusion proteins (*e.g.*, IL-2-Fc fusion proteins), IL-2

35 complexes, or IL-2 conjugates) described herein, as well as the pharmaceutical compositions disclosed herein, can be used to treat systemic lupus erythematosus (SLE).

SLE is a systemic autoimmune vasculitic disease typically characterized by immune complexes containing autoantibodies (anti-nuclear antibodies (ANA), anti-dsDNA) to self-nuclear antigens and failure of self-tolerance. SLE can affect multiple organ systems, and consequently has a range of clinical manifestations, including cutaneous, neurologic, musculoskeletal, cardiac, and kidney manifestations. Up to 50% of patients with SLE develop lupus nephritis, which comprises a spectrum of inflammatory kidney manifestations. Control of auto-reactive T cells is important to immune tolerance and reduced IL-2 and Treg can play a role in the pathogenesis of SLE and lupus nephritis. Without wishing to be bound by theory, it is believed that in some embodiments preferential Treg expansion with minimal NK cell expansion can provide clinical benefits in SLE and lupus nephritis, with reduced risk of adverse effects.

Exemplary symptoms of SLE include severe fatigue, joint pain, joint swelling, headaches, a rash on the cheeks and nose, which is called a “butterfly rash”, hair loss, anemia, blood-clotting problems, fingers turning white or blue and tingling when cold, which is known as Raynaud’s phenomenon. Other exemplary symptoms may depend on the part of the body the disease is attacking, such as the digestive tract, the heart, or the skin.

Diagnosis of SLE can be based on antinuclear antibody (ANA), complete blood count (CBC), chest X-ray, serum creatinine, and urinalysis.

In an embodiment, an IL-2 agent described herein is used in combination with a different therapeutic agent or modality for treating SLE in a subject.

Lupus Nephritis

The IL-2 agents (*e.g.*, IL-2 variants, IL-2 fusion proteins (*e.g.*, IL-2-Fc fusion proteins), IL-2 complexes, or IL-2 conjugates) described herein, as well as the pharmaceutical compositions disclosed herein, can be used to treat lupus nephritis. Lupus nephritis is an autoimmune disease that is a form of glomerulonephritis that can constitute the most severe organ manifestation of systemic lupus erythematosus (SLE). Lupus nephritis leads to autoantibodies in the kidney, *e.g.*, antibodies to nucleic acid containing particles (anti-nuclear antibodies (ANA)), which causes inflammation, *e.g.*, inflammation in the nephrons, and impairs kidney function, *e.g.*, waste removal and filtration. It can result in permanent scarring and damage to the kidneys and possibly end-stage renal disease (ESRD). Lupus nephritis often develops in a subject within five years of developing lupus. In an embodiment, lupus, *e.g.*, SLE and/or lupus nephritis, can result from a combination of factors, *e.g.*, genetic, environmental, immunoregulatory, hormonal, and/or epigenetic factors.

Imbalance of T cells due to IL-2 deprivation can amplify murine lupus and IL-2 can restore Treg:Tcon balance and impede disease progression. Adoptive transfer of *ex vivo* expanded regulatory T cells can suppress disease in lupus-prone mice. Lower number of Tregs are typically associated with patients with active SLE and Tregs can decline during flare and increase during remission.

There is unmet need for better treatment in lupus nephritis. For example, conventional immunosuppressive treatments are not uniformly effective. Even in patients who respond, 35% may relapse. 5–20% of patients with lupus nephritis develop End-stage kidney disease (ESKD) within 10 years from the initial event. Drug-induced toxicity remains a concern, one of the commonest cause of mortality and morbidity is infections.

Exemplary symptoms of lupus nephritis include, but are not limited to, blood in the urine (hematuria), proteinuria, foamy urine (*e.g.*, foamy urine due to excess protein in the urine), increased urination, edema, Reynaud syndrome, joint pain, pericarditis and effusion, arthritis, pleural effusion, high blood pressure, swelling in hands, ankles, and feet, excess levels of creatine in the blood, muscle pain, weight gain, fever of unknown etiology, neurological complications, and a red rash that is typically localized to the face (*e.g.*, across the nose and face).

Diagnosis of lupus nephritis can be based on urinalysis and the measurement of blood, cell casts (*e.g.*, cell fragments often found in the blood and/or the tubules of the kidneys), and protein levels in the urine. Diagnosis can also be based on a blood test to estimate kidney function, *e.g.*, a creatine blood test with or without a blood urea nitrogen (BUN) test. Additionally, to test kidney function, the person's estimated glomerular filtration rate (eGFR) can be measured from a blood sample. A kidney biopsy can also be performed, which can be used to stage lupus nephritis. In an embodiment, lupus nephritis is classified as one of six stages under the International Society of Nephrology/Renal Pathology Society (ISN/RPS) classification system, which include, minimal mesangial lupus nephritis (Class I), mesangial proliferative lupus nephritis (Class II), focal lupus nephritis (<50% of all glomeruli) (Class III), diffuse segmental or global lupus nephritis ($\geq$ 50% of all glomeruli) (Class IV), membranous lupus nephritis (Class V), or advanced sclerosing lupus nephritis (>90% of all glomeruli) (Class VI).

In an embodiment, an IL-2 agent described herein is used in combination with a different therapeutic agent or modality for treating lupus nephritis in a subject.

Psoriasis

The IL-2 agents (*e.g.*, IL-2 variants, IL-2 fusion proteins (*e.g.*, IL-2-Fc fusion proteins), IL-2 complexes, or IL-2 conjugates) described herein, as well as the pharmaceutical compositions disclosed herein, can be used to treat psoriasis. Psoriasis is an autoimmune disease driven by the innate and adaptive cutaneous immune responses, that affects the skin. Psoriasis generally results from sustained inflammation that leads to uncontrolled keratinocyte proliferation and dysfunctional differentiation. Inflammation resulting from psoriasis can affect additional organs and tissues in the subject and can develop into psoriatic arthritis. Further, psoriasis patients tend to exhibit increased hyperlipidemia, hypertension, coronary artery disease, type 2 diabetes, and increased body mass index. In an embodiment, psoriasis can result from a combination of factors, *e.g.*, genetic, epigenetic, and/or immunoregulatory factors.

Exemplary symptoms of psoriasis include red patches of skin covered with thick, silvery scales, raised plaques on the skin, small scaling spots, dry and cracked skin, itching, bleeding of the skin (due, e.g., to cracking and dry skin), thickened/pitted or ridged nails, and swollen/stiff joints. In some embodiments, psoriasis is localized to one location on the skin or on the body. In an embodiment, psoriasis is generalized, e.g., located on one or more, e.g., multiple areas, and/or large areas of the body/skin, including but not limited to the lower back, elbows, eyelids, nails, skin folds, ears, lips, knees, legs, feet, scalp, face and/or palms.

Diagnosis of psoriasis can be based on a skin examination and/or skin biopsy. In an embodiment, psoriasis is classified as one of four different types, which include, psoriasis vulgaris (chronic plaque-type psoriasis characterized by sharply demarcated, erythematous, pruritic plaques covered in silvery scales that can coalesce and cover large areas of skin); inverse psoriasis (affects intertriginous locations, and is characterized clinically by slightly erosive erythematous plaques and patches); guttate psoriasis (acute onset of small erythematous plaques); and pustular psoriasis (characterized by multiple, coalescing sterile pustules). In an embodiment, guttate psoriasis progresses to plaque psoriasis. In an embodiment, pustular psoriasis can be localized or generalized. In an embodiment, pustular psoriasis can comprise psoriasis pustulosa palmoplantaris (PPP) or acrodermatitis continua of Hallopeau (ACS). In an embodiment, PPP and acrodermatitis continua of ACS affect the hands and feet, with PPP restricted to the palms and soles, and ACS more distally located at the tips of fingers and toes, such as at the nail apparatus. In an embodiment, generalized pustular psoriasis presents with an acute and rapidly progressive course characterized by diffuse redness and subcorneal pustules, and can often be accompanied by systemic symptoms. In an embodiment, psoriasis can be classified as an erythrodermic psoriasis, which is typically an acute condition in which over 90% of the total body surface is erythematous and inflamed. In an embodiment, erythroderma can develop on any kind of psoriasis subtype.

In an embodiment, an IL-2 agent described herein is used in combination with a different therapeutic agent or modality for treating psoriasis in a subject.

Autoimmune hepatitis

The IL-2 agents (e.g., IL-2 variants, IL-2 fusion proteins (e.g., IL-2-Fc fusion proteins), IL-2 complexes, or IL-2 conjugates) described herein, as well as the pharmaceutical compositions disclosed herein, can be used to treat autoimmune hepatitis. Autoimmune hepatitis is an autoimmune disease that affects the liver, resulting in progressive and chronic inflammation as well as liver damage. It can result in permanent scarring and cirrhosis of the liver and/or liver failure. In an embodiment, autoimmune hepatitis can be characterized by a T cell-mediated immune response against liver autoantigens that results from a loss of regulatory immune control and tolerance. In an embodiment, autoimmune hepatitis can result from a combination of factors, e.g., genetic,

environmental, dietary, and immunoregulatory factors. In an embodiment, autoimmune hepatitis can result from an unknown etiology.

There are three subtypes: AIH type 1 is characterized by the presence of ANA and/or anti-smooth muscle antibody (SMA) autoantibodies. AIH type 2 is characterized by anti-LKM-1 autoantibodies, and a lower frequency of anti-LKM-3 autoantibodies (with or without ANA or SMA autoantibodies). AIH type 3 is characterized by autoantibodies against SLA/LP (with or without ANA or SMA autoantibodies). AIH Type 1 occurs predominantly in adults while Type 2 is generally observed in a younger, pediatric population. AIH most commonly presents with acute hepatitis, which may progress to cirrhosis and end-stage liver disease. AIH may also be associated with other autoimmune diseases such as thyroiditis, inflammatory bowel disease, type 1 diabetes mellitus, and Addison's disease.

Hepatic inflammation typically depends on the balance between T effector cells and Tregs. Biopsy is required for diagnosis and modulation of treatment and interface hepatitis is often the hallmark finding in biopsy. AIH patients can have lower IL-2 levels and Tregs respond well to IL-2 supplement. Without wishing to be bound by theory, it is believed that in an embodiment, T cells (both Tregs and T effector cells) play a role in the development and persistence of AIH. For example, impaired Treg function and the ratio of Tregs to T effector cells in inflamed liver tissue may serve as potential drivers of disease. Without wishing to be bound by theory, it is believed that in some embodiments, preferential Treg expansion with minimal NK cell expansion can provide clinical benefits in AIH, with reduced risk of adverse effects associated with chronic immunosuppressive maintenance therapy.

There is unmet need for better treatment in autoimmune hepatitis. Steroid based therapies are considered to be the standard of care. Relapse after treatment cessation is almost universal (*e.g.*, between 25% and 100%). Chronic azathioprine use can be associated with risk of infection and cancer.

Exemplary symptoms of autoimmune hepatitis include, but are not limited to, joint pain, lethargy, nausea, poor appetite, pain over the liver in the upper abdomen, jaundice of the eyes and skin, dark colored urine, rash, psoriasis, vitiligo, acne, fatigue, spider angiomas, hepatomegaly, rectal bleeding or vomiting, unexplained weight loss, pruritis, edema of lower legs, ankles, or feet, and bloating from a buildup of fluid in the abdomen. In an embodiment, autoimmune hepatitis results in increased levels of the serum transaminase, IgG levels, autoantibodies, liver interface hepatitis, and/or liver enzymes, alanine transaminase (ALT) and an aspartate transaminase (AST). In an embodiment, autoimmune hepatitis results in decreased levels of IL-2.

Diagnosis of autoimmune hepatitis can be based on a laboratory test and/or liver function test, *e.g.*, a blood test, a liver biopsy, an ultrasound, a Doppler ultrasonography, a CT and/or an MRI and cholangiography (x-rays of the bile ducts). In an embodiment, the blood test include one or more of a coagulation test (*e.g.*, to measure clotting factors), a complete blood count (CBC), an electrolyte

panel, a serum bilirubin test, a serum albumin test, a serum alkaline phosphatase test, a serum aminotransferases (transaminases) test, a prothrombin time (PTT) test, an alanine transaminase (ALT) test, an aspartate transaminase (AST) test, gamma-glutamyl transpeptidase test, a lactic dehydrogenase test, a 5-nucleotidase test, an alpha-fetoprotein test, and a mitochondrial antibodies test. In an embodiment, diagnosis of autoimmune hepatitis includes a measure of autoimmune antibodies, *e.g.*, antinuclear antibodies (ANA) and anti-smooth muscle antibodies (SMA).

In an embodiment, diagnosis of autoimmune hepatitis comprises quantifying a Revised Diagnostic Criteria (RDC) score. In an embodiment, quantification of an RDC score comprises one or more of the following criteria: gender (*e.g.*, being a female); ratio of alkaline phosphatase levels to aspartate aminotransferase or alanine aminotransferase levels; γ -globulin or IgG levels; ANA, SNA and anti-liver kidney microsomal type I (anti-LKM1) antibody titers, anti-mitochondrial antibody positivity, viral serological markers, use of drugs with hepatotoxic potential, alcohol use, *HLADR3* or *HLADR4* genotypes, concurrent immunological diseases (*e.g.*, thyroiditis and/or colitis), and/or histological features (*e.g.*, presence or absence of interface hepatitis, plasma cells, rosettes, and/or biliary changes). In an embodiment, an aggregate RDC score of >15 points is classified as autoimmune hepatitis. In an embodiment, an aggregate RDC score of 10-15 is classified as probable autoimmune hepatitis.

In an embodiment, diagnosis of autoimmune hepatitis comprises quantifying a Simplified Diagnostic Criteria (SDC) score. In an embodiment, an SDC aggregate score of ≥ 7 is classified as autoimmune hepatitis. In an embodiment, an SDC aggregate score of ≥ 6 is classified as probable autoimmune hepatitis. In an embodiment, quantification of an SDC score comprises one or more of the following criteria: presence of autoantibodies (*e.g.*, ANA, SNA and/or anti-LKM1 antibodies), immunoglobulin levels (*e.g.*, levels of γ -globulin or IgG), viral hepatitis, and/or histological features compatible with autoimmune hepatitis.

In an embodiment, autoimmune hepatitis can be classified as Type I autoimmune hepatitis. Type I autoimmune hepatitis can occur at an any age. In an embodiment, Type I autoimmune hepatitis can often be associated with other autoimmune diseases, *e.g.*, thyroiditis, inflammatory bowel disease, type I diabetes, Addison's disease. In an embodiment, autoimmune hepatitis can be classified as Type II autoimmune hepatitis. Type II autoimmune hepatitis can be more common in children and younger adults. In an embodiment, Type II autoimmune hepatitis may be associated with other autoimmune diseases, thyroiditis, inflammatory bowel disease, type I diabetes, Addison's disease.

In an embodiment, an IL-2 agent described herein is used in combination with a different therapeutic agent or modality for treating autoimmune hepatitis in a subject.

Nephrotic Syndrome

The IL-2 agents (*e.g.*, *e.g.*, IL-2 variants, IL-2 fusion proteins (*e.g.*, IL-2-Fc fusion proteins), IL-2 complexes, or IL-2 conjugates) described herein, as well as the pharmaceutical compositions disclosed herein, can be used to treat nephrotic syndrome, *e.g.*, an idiopathic nephrotic syndrome.

- 5 Nephrotic syndrome is a collection of symptoms that indicate kidney damage, which include but are not limited to, albuminuria (increased protein in the urine), hyperlipidemia (higher than normal fat and cholesterol levels in the blood), edema (*e.g.*, usually in the legs, feet, ankles and less often in the hands or face), and/or hypoalbuminemia (low levels of albumin in the blood). In an embodiment, nephrotic syndrome results from damage to the glomeruli of the kidneys, which impairs kidney
- 10 function, *e.g.*, waste removal and filtration. In an embodiment, in nephrotic syndrome, the damaged glomeruli allow at least about 3 grams or more of protein to leak into the urine, as measured over a 24-hour period. In an embodiment, nephrotic syndrome can lead to other health problems, *e.g.*, anemia, heart disease, high blood pressure, fluid buildup, blood clots, infections, malnutrition, stroke, heart attack, acute kidney injury, chronic kidney disease, kidney failure, and/or end-stage renal
- 15 disease (ESRD).

In an embodiment, nephrotic syndrome results from systemic T-cell dysregulation, *e.g.*, a reduction of CD4+ T helper cells and increased prevalence of CD8+ cytotoxic T cells; imbalance between Th2 and Th1 cells with increased production of IL-13, and/or reduced frequency and/or function of T regulatory cells.

- 20 In an embodiment, nephrotic syndrome is the result of other diseases that affect the kidneys, *e.g.*, focal segmental glomerulosclerosis (FSGS), minimal change disease (MCD), IgA nephropathy, lupus nephritis, and membranous nephropathy. In an embodiment, nephrotic syndrome is the result of systemic diseases that affect the whole body including but not limited to the kidneys, *e.g.*, diabetes, amyloidosis, and/or lupus (*e.g.*, systemic lupus erythematosus (SLE) and/or lupus nephritis). In an
- 25 embodiment, idiopathic neuropathy results from MCD or Primary FSGS. In an embodiment, focal segmental glomerulosclerosis (FSGS) is the most common etiology of idiopathic nephrotic syndrome in adults. In an embodiment, minimal change disease (MCD) is the most common etiology of idiopathic nephrotic syndrome in children. In an embodiment, MCD results in decreased levels of T regulatory cells, T regulatory cell-related cytokines (*e.g.*, TGF- β 1 and IL-10), and T regulatory cell-
- 30 related transcription factors (*e.g.*, FOXP3). In an embodiment, increasing the number of T regulatory cells can induce remission of FSGS.

Exemplary symptoms of nephrotic syndrome include, but are not limited to, edema, foamy urine (*e.g.*, foamy urine due to excess protein in the urine), weigh gain (*e.g.*, weight gain due to excessive fluid retention), fatigue, and loss of appetite.

- 35 Diagnosis of nephrotic syndrome can be based on urinalysis and the measurement of blood, cell casts (*e.g.*, cell fragments often found in the blood and/or the tubules of the kidneys), albumin and/or creatine levels in the urine, and protein levels in the urine. Diagnosis can also be based on a

blood test to estimate kidney function, *e.g.*, a creatine blood test with or without a blood urea nitrogen (BUN) test. Additionally, to test kidney function, the person's estimated glomerular filtration rate (eGFR) can be measured from a blood sample. A kidney biopsy can also be performed.

Nephrotic syndrome can typically be treated by steroids, but relapse is common and often
5 requires use of one or more additional therapies.

In an embodiment, an IL-2 agent described herein is used in combination with a different therapeutic agent or modality for treating nephrotic syndrome in a subject.

Immune-mediated Focal Segmented Glomerulosclerosis (IM-FSGS)

10 The IL-2 agents (*e.g.*, *e.g.*, IL-2 variants, IL-2 fusion proteins (*e.g.*, IL-2-Fc fusion proteins), IL-2 complexes, or IL-2 conjugates) described herein, as well as the pharmaceutical compositions disclosed herein, can be used to treat focal segmented glomerulosclerosis (FSGS), *e.g.*, immune-mediated FSGS (IM-FSGS). FSGS is a histopathologic lesion describing segmental glomerular
15 scarring in distinct, focal areas of the kidney, typically resulting from a spectrum of underlying etiologies. Immune-mediated FSGS (IM-FSGS) is a sub-population of FSGS that arises in the absence of known causes such as human immunodeficiency virus or specific nephrotoxic agents, and is generally characterized by incomplete response to immunosuppression. FSGS patients with
20 persistent dependence on immunosuppressive therapy have an increased risk of progression to end stage kidney disease, as well as a higher probability of experiencing recurrence of FSGS after transplantation (often within the first-year post-transplant), despite aggressive standard of care pre- & peri-transplant therapy with plasmapheresis. In contrast, non-IM-FSGS (*e.g.*, resulting from genetic mutations in critical glomerular structural proteins) is typically resistant to immunosuppression, and does not typically recur after transplantation.

Immunosuppression-resistant FSGS typically results from monogenic mutations that cause
25 structural defects in the glomerular filtration barrier. Many such mutations are known (over 80 have been identified, *e.g.*, NPHS1, NPHS2, ACTN4, TRPC6, CD2AP, PLCE1), while some familial FSGS cohorts likely harbor as yet undiscovered mutations.

In contrast, immunosuppression-responsive FSGS likely represents the sub-population of IM-FSGS patients. This group is further defined by the response to initial courses of steroid therapy
30 and other second line immunosuppression (*e.g.*, calcineurin inhibitors, cyclophosphamide, rituximab, and mycophenolate mofetil). IM-FSGS patients with steroid-sensitive nephrotic syndrome (SSNS) remain in remission after completing a course and taper of steroid therapy, while patients with the steroid-dependent or frequently relapsing nephrotic syndrome (SDNS/FRNS) form of IM-FSGS
35 require chronic steroid therapy to repeatedly achieve or maintain remission. FRNS often progresses to secondary steroid-resistant nephrotic syndrome (SRNS) that may respond to second line immunosuppression.

While the terms “FSGS” and “minimal change disease” (MCD) are typically associated with SRNS and SSNS, respectively, there are numerous contradictory instances. More likely, a histologic diagnosis of MCD reflects an earlier stage of the disease, prior to more extensive focal involvement of the kidney, and may be the result of statistical sampling given the limitations of kidney biopsies (Schachter, *Pediatr Nephrol* 21, 953 - 957, 2006; Maas et al., *Nat Rev Nephrol* (12):768-776, 2016). Therefore, SSNS/SDNS/FRNS patients with biopsy findings showing either MCD or FSGS are included in the definition of IM-FSGS, and henceforth the term “IM-FSGS” will implicitly include immune-mediated MCD.

Tregs play a key role in the pathogenesis of IM-FSGS. Without wishing to be bound by theory, it is believed that in some embodiments Treg expansion can provide significant clinical benefits in IM-FSGS (both native kidney and post-transplant), allowing for higher rates of remission with reduced or no steroid therapy.

Exemplary symptoms of FSGS include swelling in body parts like legs, ankles and around eyes (edema), weight gain due to extra fluid building in the body, foamy urine caused by high protein levels in the urine (proteinuria), high fat levels in the blood (high cholesterol), and low levels of protein in the blood. FSGS can cause nephrotic syndrome.

Diagnosis of FSGS can be based on urine test, blood test, glomerular filtration rate (GFR), and kidney biopsy.

In an embodiment, an IL-2 agent described herein is used in combination with a different therapeutic agent or modality for treating IM-FSGS in a subject.

Alopecia Areata

The IL-2 agents (*e.g.*, *e.g.*, IL-2 variants, IL-2 fusion proteins (*e.g.*, IL-2-Fc fusion proteins), IL-2 complexes, or IL-2 conjugates) described herein, as well as the pharmaceutical compositions disclosed herein, can be used to treat alopecia areata (AA). AA is an autoimmune disease typically resulting in inflammation induced hair loss. The most common patterns include patchy alopecia areata (small round or patchy bald lesion, usually on the scalp), alopecia totalis (total loss of scalp hair only), and alopecia universalis (total loss of all body hair). Alopecia areata affects approximately 4.5 million people in the United States, with most under the age of 30 years, and can impart significant emotional distress in this mostly young adult population. Systemic therapy with immunosuppressive therapy is the primary standard of care for more extensive AA, although topical therapy may also be co-administered. JAK inhibitors are the key investigational agents in clinical trials of AA, however chronic use may be limited by safety concerns such as leukopenia, elevated liver enzymes, and thromboembolic events. Without wishing to be bound by theory, it is believed that in some embodiments, preferential Treg expansion can provide clinical benefits in AA, with reduced risk of the adverse effects that may accompany JAK inhibitor therapy.

Exemplary symptoms of AA include hair loss.

Diagnosis of AA can be based on extent of hair loss, scalp biopsy, and blood tests.

In an embodiment, an IL-2 agent described herein is used in combination with a different therapeutic agent or modality for treating AA in a subject.

5 Combination Therapies

The IL-2 agents (*e.g.*, *e.g.*, IL-2 variants, IL-2 fusion proteins, IL-2 complexes, or IL-2 conjugates) described herein, as well as the pharmaceutical compositions disclosed herein, can be used in combination with other therapies.

For example, the combination therapy can include an IL-2 agent described herein formulated with, and/or co-administered with, one or more additional therapeutic agents, *e.g.*, one or more additional therapeutic agents described herein. In other embodiments, the IL-2 agents are administered in combination with other therapeutic treatment modalities, *e.g.*, other therapeutic treatment modalities described herein. Such combination therapies may advantageously utilize lower dosages of the administered therapeutic agents, thus avoiding possible toxicities or complications associated with the various monotherapies.

Administered “in combination,” as used herein, means that two (or more) different treatments are delivered to the subject before, or during the course of the subject's affliction with a disorder. In an embodiment, two or more treatments are delivered prophylactically, *e.g.*, before the subject has the disorder or is diagnosed with the disorder. In another embodiment, the two or more treatments are delivered after the subject has developed or diagnosed with the disorder. In an embodiment, the delivery of one treatment is still occurring when the delivery of the second begins, so that there is overlap. This is sometimes referred to herein as “simultaneous” or “concurrent delivery.” In other embodiments, the delivery of one treatment ends before the delivery of the other treatment begins. In an embodiment of either case, the treatment is more effective because of combined administration. For example, the second treatment is more effective, *e.g.*, an equivalent effect is seen with less of the second treatment, or the second treatment reduces symptoms to a greater extent, than would be seen if the second treatment were administered in the absence of the first treatment, or the analogous situation is seen with the first treatment. In an embodiment, delivery is such that the reduction in a symptom, or other parameter related to the disorder is greater than what would be observed with one treatment delivered in the absence of the other. The effect of the two treatments can be partially additive, wholly additive, or greater than additive. The delivery can be such that an effect of the first treatment delivered is still detectable when the second is delivered.

In an embodiment, the IL-2 agent is administered in combination with a second therapy (*e.g.*, an additional agent) to treat or prevent a disorder described herein. In an embodiment, the additional agent is a second IL-2 agent, *e.g.*, an IL-2 agent different from a first IL-2 agent. Exemplary IL-2 agents that can be used in combination include, but are not limited to, any combination of the IL-2 agents described herein. In another embodiment, the additional agent is other than an IL-2 agent. For

example, the additional agent can be a small molecule or a nucleic acid molecule. In yet another embodiment, the second therapy is chosen from a surgery, a radiation therapy, a cell therapy (*e.g.*, a stem cell therapy), or an organ or tissue transplantation.

In an embodiment, the second therapy comprises a therapy chosen from one or more of: an
 5 androgen replacement therapy, an antihormone therapy, an antiserum therapy, an autologous immune enhancement therapy, a biotherapy, a blood irradiation therapy, a brachytherapy, a cardiac resynchronization therapy, a cell therapy, a cell transfer therapy, a chelation therapy, a chemotherapy, a chrysotherapy, a cobalt therapy, a cold compression therapy, a cryotherapy, an electroconvulsive therapy, an electromagnetic therapy, an electron therapy, an electrotherapy, an enzyme replacement
 10 therapy, an epigenetic therapy, an estrogen replacement therapy, an extracorporeal shockwave therapy, a fast neutron therapy, a fluoride therapy, a gene therapy, a heat therapy, a helminthic therapy, a hormone therapy, a hormone replacement therapy, a host modulatory therapy, a hyperbaric oxygen therapy, a hyperthermia therapy, an immunosuppressive therapy, an immunotherapy, an intraoperative electron radiation therapy, an intraoperative radiation therapy, an inversion therapy, a
 15 laser therapy, a light therapy, a lithium therapy, a low level laser therapy, a magnet therapy, a magnetic resonance therapy, a medical gas therapy, a medical nutrition therapy, a molecular chaperone therapy, a molecular therapy, a monoclonal antibody therapy, a negative air ionization therapy, a neutron capture therapy, a neutron therapy, an oral rehydration therapy, an osmotherapy, an oxygen therapy, an ozone therapy, a palliative therapy, a particle therapy, a phage therapy, a
 20 phonemic neurological hypochromium therapy, a photodynamic therapy, a phototherapy, a photothermal therapy, a physical therapy, a prolotherapy, a protein therapy, a proton therapy, a pulsed electromagnetic field therapy, a PUVA therapy, a radiation therapy, a rehydration therapy, a respiratory therapy, salvage therapy, a serotherapy, a stem cell therapy, a stereotactic radiation therapy, a targeted therapy, a thermotherapy, a TK cell therapy, a tolerogenic therapy, a transdermal
 25 continuous oxygen therapy, an ultraviolet light therapy, or a virotherapy.

Exemplary therapies that can be used in combination with an IL-2 agent described herein to treat or prevent other disorders are also described in the section of “Methods of Treating or Preventing Disorders” herein.

30 Other aspects and embodiments are also disclosed in International Application Publication No. WO 2021/021606, and U.S. Application Publication No. US20210024601, the contents of which are incorporated by reference in their entirety.

ENUMERATED EMBODIMENTS

35 1. An IL-2 agent for use a method of treating an autoimmune disease in a human subject, wherein the IL-2 agent is administered at a dose of 0.5 µg/kg to 300 µg/kg, wherein the IL-2

agent is an IL-2 variant or an IL-2 fusion protein comprising the IL-2 variant, and wherein the IL-2 variant comprises:

- (i) the amino acid substitution H16L or H16N, and/or the amino acid substitution I92S; and
- (ii) the amino acid substitutions V69A, Q74P, and C125S,

5 corresponding to human IL-2 (SEQ ID NO: 1031).

2. A method of treating an autoimmune disease, comprising administering to a human subject in need thereof an IL-2 agent at a dose of 0.5 µg/kg to 300 µg/kg, wherein the IL-2 agent is an IL-2 variant or an IL-2 fusion protein comprising the IL-2 variant, and wherein the IL-2 variant comprises:

- (i) the amino acid substitution H16L or H16N, and/or the amino acid substitution I92S; and
- (ii) the amino acid substitutions V69A, Q74P, and C125S,

corresponding to human IL-2 (SEQ ID NO: 1031),

thereby treating the autoimmune disease.

3. The IL-2 agent for use of embodiment 1, or the method of embodiment 2, wherein the
15 IL-2 agent is administered at a dose of 0.5 µg/kg to 100 µg/kg, 1 µg/kg to 50 µg/kg, 2 µg/kg to 40 µg/kg, 3 µg/kg to 30 µg/kg, 4 µg/kg to 25 µg/kg, 5 µg/kg to 20 µg/kg, 10 µg/kg to 15 µg/kg, 1 µg/kg to 40 µg/kg, 1 µg/kg to 30 µg/kg, 1 µg/kg to 20 µg/kg, 1 µg/kg to 10 µg/kg, 1 µg/kg to 5 µg/kg, 5 µg/kg to 50 µg/kg, 10 µg/kg to 50 µg/kg, 20 µg/kg to 50 µg/kg, 30 µg/kg to 50 µg/kg, 40 µg/kg to 50 µg/kg, 0.5 µg/kg to 2 µg/kg, 3 µg/kg to 5 µg/kg, 6 µg/kg to 10 µg/kg, 12 µg/kg to 20 µg/kg, or 25
20 µg/kg to 40 µg/kg.

4. The IL-2 agent for use of embodiment 1 or 3, or the method of embodiment 2 or 3, wherein the IL-2 agent is administered at a dose of 1 µg/kg, 4 µg/kg, 8 µg/kg, 16 µg/kg, or 32 µg/kg.

5. The IL-2 agent for use of any of embodiments 1 or 3-4, or the method of any of embodiments 2-4, wherein the IL-2 agent is administered once a week, once every two weeks, or once
25 every four weeks.

6. The IL-2 agent for use of any of embodiments 1 or 3-5, or the method of any of embodiments 2-5, wherein the IL-2 agent is administered subcutaneously.

7. The IL-2 agent for use of any of embodiments 1 or 3-6, or the method of any of embodiments 2-6, wherein the autoimmune disorder is systemic lupus erythematosus (SLE),
30 autoimmune hepatitis (AIH), immune-mediated focal segmental glomerulosclerosis (FSGS), or alopecia areata (AA).

8. The IL-2 agent for use or the method of any of embodiments 1 or 3-7, or the method of any of embodiments 2 or 5-7, wherein the IL-2 variant further comprises the amino acid substitution T3A.

9. The IL-2 agent for use of any of embodiments 1 or 3-8, or the method of any of embodiments 2-8, wherein the IL-2 variant comprises the amino acid sequence of any of SEQ ID

NOs: 4, 5, 11, 1000, 1001, or 1002, an amino acid sequence that is at least 95% identical thereto or differs by no more than 1, 2, 3, 4, or 5 amino acids therefrom, or a functional fragment thereof.

10. The IL-2 agent for use of any of embodiments 1 or 3-9, or the method of any of embodiments 2-9, wherein the IL-2 agent comprises an IL-2 fusion protein comprising the IL-2
5 variant.

11. The IL-2 agent for use or the method of embodiment 10, wherein the IL-2 fusion protein further comprises an Fc region.

12. The IL-2 agent for use or the method of embodiment 11, wherein the Fc region comprises an Fc region of IgG1 allotype m3 comprising an N297G substitution according to EU
10 numbering.

13. The IL-2 agent for use or the method of embodiment 11 or 12, wherein the Fc region comprises the amino acid sequence of SEQ ID NO: 1003, or an amino acid sequence that is at least 95% identical thereto or differs by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 amino acids therefrom, or a functional fragment thereof.

14. The IL-2 agent for use or the method of any of embodiments 11-13, wherein the Fc region is fused to the C-terminus of the IL-2 variant.

15. The IL-2 agent for use or the method of any of embodiments 11-14, wherein the IL-2 fusion protein further comprises a linker.

16. The IL-2 agent for use or the method of embodiment 15, wherein the linker comprises
20 (G₄S)₄ (SEQ ID NO: 48).

17. The IL-2 agent for use or the method of any of embodiments 11-16, wherein the fusion protein comprises an amino acid sequence of any of SEQ ID NOs: 1004, 1005, 1006, 1007, 1008, or 1009, an amino acid sequence that is at least 95% identical thereto or differs by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 amino acids therefrom, or a functional fragment thereof.

18. The IL-2 agent for use or the method of any of embodiments 11-17, wherein the fusion protein forms a dimer.

EXAMPLES

Example 1: Study to Evaluate the Safety, Tolerability, Pharmacodynamics, and

30 Pharmacokinetics of IL-2 Fusion Protein in Healthy Participants and in Participants with Autoimmune Disease(s)

This Example describes a phase 1, first-in-human, 2-part, randomized, double-blind, placebo controlled, single ascending dose and sequential, open-label, multiple ascending dose study to evaluate the safety, tolerability, pharmacodynamics, and pharmacokinetics of an IL-2 fusion protein in
35 healthy participants and participants with autoimmune disease(s).

An exemplary IL-2 fusion protein, IL-2-Fc fusion protein comprising the mutations H16L/V69A/Q74P/C125S (SEQ ID NO: 1008) (IL2-118 fused to IgG1 Fc N297G allotype m3), is

administered to healthy patients in a single ascending dose (SAD) study as well as to patients with autoimmune diseases in a multiple ascending dose study (MAD). The autoimmune diseases that are included in Part B (MAD) are systemic lupus erythematosus (SLE), autoimmune hepatitis (AIH), immune-mediated focal segmental glomerulosclerosis (FSGS), and alopecia areata (AA).

- 5 SLE, AIH, FSGS, and AA share an underlying mechanism of diminished T_{reg} responses contributing to disease pathogenesis. These diseases are typically characterized by overactivation of the immune system causing destruction of otherwise healthy tissues. These diseases present with a dampened T_{reg} response or population size, and clinical improvements may be mediated through amplification of T_{reg} . These cells are a subpopulation of cluster of differentiation ($CD4^+$) T helper
- 10 cells that moderate immune responses by releasing anti-inflammatory cytokines and suppressing the activation of $CD4^+$ and $CD8^+$ effector T cells (T_{eff}). Without wishing to be bound by theory, it is believed that the IL-2 fusion protein used in this study causes robust expansion of T_{reg} with minimal to no expansion of T_{eff} at physiological relevant doses.

15 Objectives and Endpoints

The objectives and endpoints for Part A and Part B are summarized in **Tables 2-3**.

Table 2. Objectives and Endpoints of the SAD Study

Objectives	Endpoints
Primary: <ul style="list-style-type: none"> To evaluate the safety and tolerability of IL-2 fusion. 	Primary: <ul style="list-style-type: none"> Incidence and severity of TEAEs.
Secondary: <ul style="list-style-type: none"> To determine the PD effect of IL-2 fusion. To assess the PK of IL-2 fusion. 	Secondary: <ul style="list-style-type: none"> Mean fold change from baseline in immune cell types, including the following: <ul style="list-style-type: none"> Absolute number (cells/μL) and frequency (%) of T_{reg}. Absolute number (cells/μL) and frequency (%) of helper T cells, cytotoxic T cells, and natural killer cells. Pharmacokinetic parameters: <ul style="list-style-type: none"> C_{max}, t_{max}, AUC_{last}, and AUC_{∞}.
<ul style="list-style-type: none"> To evaluate the immunogenicity of IL-2 fusion. 	<ul style="list-style-type: none"> Characterization of ADA to IL-2 fusion over time.
Other: <ul style="list-style-type: none"> To assess the effect of IL-2 fusion on immune cell biology. To assess the effect of IL-2 fusion on plasma cytokine profiles. 	Other: <ul style="list-style-type: none"> Change from baseline in immune cell types including, but not limited to, the following: <ul style="list-style-type: none"> Expression levels (MFI) of FOXP3 and CD25. Plasma cytokine levels.

ADA = anti-drug antibody; AUC_{∞} = area under the concentration-time curve from time zero to infinity; AUC_{last} = area under the concentration-time curve from time zero to the last observable concentration; CD = cluster of differentiation; C_{max} = maximum (peak) serum drug concentration; FOXP3 = forkhead box protein P3; MFI = median fluorescence intensity;

- 20

TEAE = treatment-emergent adverse event; $t_{\max}$ = time of maximum (peak) serum drug concentration.

Table 3. Objectives and Endpoints of the MAD Study

<p>Primary:</p> <ul style="list-style-type: none"> To evaluate the safety and tolerability of IL-2 fusion. 	<p>Primary:</p> <ul style="list-style-type: none"> Incidence and severity of TEAEs.
<p>Secondary:</p> <ul style="list-style-type: none"> To determine the PD effect of IL-2 fusion. To assess the PK of IL-2 fusion. To evaluate the immunogenicity of IL-2 fusion. 	<p>Secondary:</p> <ul style="list-style-type: none"> Mean fold change from baseline in immune cell types, including the following: <ul style="list-style-type: none"> Absolute number (cells/μL) and frequency (%) of T_{reg}. Absolute number (cells/μL) and frequency (%) of helper T cells, cytotoxic T cells, and natural killer cells. Pharmacokinetic parameters: <ul style="list-style-type: none"> $C_{\max}$, $t_{\max}$, and AUC_{tau}. Characterization of ADA to IL-2 fusion protein over time.
<p>Other:</p> <ul style="list-style-type: none"> To assess the effect of IL-2 fusion on immune cell biology. To assess the effect of IL-2 fusion on plasma cytokine profiles. To assess clinical response trends. 	<p>Other:</p> <ul style="list-style-type: none"> Change from baseline in immune cell types stratified by indication including, but not limited to, the following: <ul style="list-style-type: none"> Expression levels (MFI) of FOXP3 and CD25. Plasma cytokine levels. Assess T_{reg} response trends across the 4 indications. Assess relationships between T_{reg} and early efficacy response trends across the 4 indications. Assess initial clinical response trends in participants with immune-mediated diseases who have received up to 8 weeks of IL-2 fusion protein therapy: SLE: <ul style="list-style-type: none"> Change from baseline in the SELENA-SLEDAI. Change from baseline in uPCR and uACR as measured from first morning voided specimens. Proportion of participants with uPCR < 0.5. Change from baseline in eGFR. Change from baseline in ds-DNA titers. Change from baseline in C3, C4, and CH50. AIH: <ul style="list-style-type: none"> Change from baseline in serum ALT and AST levels. Change in ALP:AST ratio and ALP:ALT ratio. Change from baseline in total serum IgG levels. FSGS: <ul style="list-style-type: none"> Change from baseline in uPCR, measured from

<ul style="list-style-type: none"> To assess urine and blood biomarkers of disease state. 	<ul style="list-style-type: none"> 24-hour urine collection. Change from baseline in serum albumin level. Number of participants achieving complete or partial remission.^a Change from baseline in eGFR.^b AA: <ul style="list-style-type: none"> Change from baseline in the SALT score. Change from baseline in eyelash and eyebrow growth, as assessed by the ClinRO. Change from baseline in percentage of scalp affected based on standardized photography. Change from baseline in markers of inflammation on scalp biopsy.^c Change in absolute values of urine and blood biomarkers of disease state over time.
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ALP = alkaline phosphatase; ALT = alanine transaminase; AST = aspartate transaminase;

AUC_{1au} = area under the concentration-time curve over the dosing interval at steady-state;

CKD-EPI = Chronic Kidney Disease Epidemiology Collaboration; ClinRO = Clinician Reported

Outcomes for eyelashes and eyebrows; ds-DNA = double-stranded deoxyribonucleic acid;

- 5 eGFR = estimated glomerular filtration rate; IgG = immunoglobulin G; SALT = Severity of Alopecia Tool; SELENA-SLEDAI = Safety of Estrogens in Lupus Erythematosus: National Assessment-Systemic Lupus Erythematosus Disease Activity Index; uACR = urine albumin/creatinine ratio; uPCR = urine protein-to-creatinine ratio.

^aComplete remission is defined as a reduction of proteinuria to < 0.3 g/d or < 300 mg/g

- 10 (< 30 mg/mmol), normal serum creatinine, and serum albumin > 3.5 g/dL (35 g/L); partial remission is defined as a reduction of proteinuria to 0.3 - 3.5 g/d (300 - 3500 mg/g [30 - 350 mg/mmol]) and stable serum creatinine (increase in serum creatinine < 25%).

^bEstimated glomerular filtration rate will be calculated using the CKD-EPI formula (2021).

^cApplicable only for participants who consent to the scalp biopsy.

15

Study Design

This is a phase 1, multicenter, 2-part combined SAD and MAD FIH study to investigate the safety, tolerability, PD, and PK of SC administration of the IL-2 fusion protein in healthy participants (Part A - SAD) and in participants with an autoimmune inflammatory disease(s) (SLE, AIH, FSGS, or

20 AA) (Part B - MAD).

Part A is a randomized, double-blind, placebo controlled SAD assessment of SC administration of the IL-2 fusion protein in healthy participants. Up to 5 cohorts are planned, each comprising 8 participants (6 IL-2 fusion protein and 2 placebo). Additional cohort(s) may be added if insufficient T_{reg} expansion is observed.

- 25 Randomization to the IL-2 fusion protein or placebo occurs on Day 1, after screening and all inclusion/exclusion criteria are confirmed to be met. Participants are SC administered the IL-2 fusion

protein (or placebo) in the study center on Day 1. Initial dosing in at least the first 3 cohorts (Part A) is limited to 3 participants (2 IL-2 fusion protein and 1 placebo) who serve as ‘sentinel participants’ to be observed for potential severe/serious AEs. Subsequent dosing of remaining participants from the cohort only proceed after 24 hours of observation of the initial 3 participants has been completed.

- 5 Participants are discharged on Day 4, approximately 72 hours after dosing. The follow-up period after dosing is 28 days.

Participants are first enrolled in Cohort 1 (Part A) and the proposed starting dose is 1 µg/kg. Escalation to the next dosing level cohort occur after review of safety and PD data. Dose escalation is determined as summarized in **Table 4**.

10

Table 4. Criteria for Dose Escalation in the SAD Study

Study Progression	Dose Selection Process	Trigger for Analysis	Criteria for Escalation
SAD Cohort X to SAD Cohort X+1	Initial dose determined from PK/PD modeling; subsequent doses determined based on the observed expansion of T _{regs} (%T _{reg} /CD4 ⁺) in SAD Cohort X and safety.	100% of participants have completed ≥ 17 days in SAD Cohort X	<ul style="list-style-type: none"> Determines acceptable safety profile to proceed based on Cohort X data Approval of dose for Cohort X+1

If the dose is found to be reasonably safe and tolerable, the decision is made to proceed to the next cohort. The estimated dose levels for Cohorts 1 to 5 (Part A) are summarized in **Table 5**.

15

Table 5. Cohorts in the SAD study

Cohorts	Dose level
Cohort 1	1 µg/kg
Cohort 2	4 µg/kg
Cohort 3	8 µg/kg
Cohort 4	16 µg/kg
Cohort 5	32 µg/kg

The total duration of the clinical study for each participant are up to approximately 57 days.

- 20 Part B is an open-label, MAD basket assessment of SC administration of the IL-2 fusion protein in participants with an autoimmune inflammatory disease (SLE, AIH, FSGS, and/or AA). Two to 3 cohorts are planned, each comprising 12 participants. In Cohorts 1 and 2, at least 2 participants per indication are enrolled. For each of the 4 indications at least 2 participants are required to be enrolled in each cohort, and an additional 4 participants from any of the 4 indications are enrolled for a total of 12 participants in each of Cohorts 1 and 2. Enrollment for Cohort 3 may be flexible with
- 25 respect to the indications and the number of participants per indication.

The dose for Cohorts 1 and 2 (Part B) will be derived from Part A, as described below. The dose for Cohort 3 (Part B) will be derived from Part A and earlier cohorts in Part B. The dosing frequency in Cohorts 1 and 2 (Part B) will be once every 2 weeks for 8 weeks. The dosing frequency in Cohort 3 (Part B) will be once every 2 weeks for 8 weeks but may be increased to once every week for 8 weeks. The follow-up period after the last dose will be 28 days.

Initiation of Part B and escalation to the next dosing level cohort within Part B occurs after review of the available safety data. Dose escalation is determined as summarized in **Table 6**.

Table 6. Criteria for Dose Escalation in the MAD Study

Study Progression	Dose Selection Process	Trigger for Analysis	Criteria for Escalation
SAD to MAD Cohort 1, based on the SAD cohort demonstrating ~2-fold T_{reg} expansion	SAD data observed for T_{reg} expansion ($\%T_{reg}/CD4^+$); MAD Cohort 1 dose is selected from the SAD cohort demonstrating ~2-fold increase in $\%T_{reg}/CD4^+$ compared to baseline.	$\geq 100\%$ of participants have completed ≥ 17 days in SAD Cohort	<ul style="list-style-type: none"> Determines acceptable safety profile in SAD Cohort (where the dose in SAD Cohort is $\geq$ the proposed dose for MAD Cohort 1) Approval of dose for MAD Cohort 1
MAD Cohort 1 to MAD Cohort 2	MAD Cohort 2 dose is selected from the SAD cohort demonstrating ~5-fold increase in $\%T_{reg}/CD4^+$ compared to baseline.	$\geq 50\%$ of participants have completed ≥ 17 days following the last dose in MAD Cohort 1	<ul style="list-style-type: none"> Determines acceptable safety profile in SAD study at $\geq$ the proposed dose, and safety and tolerability in MAD Cohort 1 Approval of dose for MAD Cohort 2
MAD Cohort 2 to MAD Cohort 3	Dose is determined from an evaluation of MAD Cohorts 1 and 2. For example, Cohort 3 may test variations in dose and/or frequency, for which safety has been established in the preceding SAD or MAD cohorts.	$\geq 50\%$ of participants have completed ≥ 17 days following the last dose in MAD Cohort 2	<ul style="list-style-type: none"> Data review for MAD Cohorts 1 and 2 reports no safety or tolerability concerns PD results from MAD Cohorts 1 and 2 suggest that further study or additional participants are needed

The total duration of the clinical study for each participant in Part B (MAD) are up to approximately 99 days.

The IL-2 fusion protein is administered at a first-in-human starting dose of 1 $\mu\text{g/kg}$ SC to healthy participants in Cohort 1 of Part A. Without wishing to be bound by theory, it is believed that the starting dose was selected upon consideration of the IL-2 fusion protein target and mechanism of action, in vitro activity data, in vitro/in vivo toxicology data, the no observed adverse effect level (NOAEL) observed in the pivotal toxicology study, and estimations derived from a PK/PD model of the minimally active biological effect level (MABEL) dose in humans.

The cynomolgus monkey is considered a relevant species for evaluation of the IL-2 fusion protein toxicity and dose translation due to similar binding affinity of the IL-2 fusion protein to the cynomolgus monkey and human CD25 receptor. The effects of multiple doses of the IL-2 fusion protein were evaluated in a GLP toxicology study in healthy cynomolgus monkeys at 100, 300, and 1000 µg/kg SC once weekly for 8 weeks. There were no IL-2 fusion protein-related adverse findings up to 300 µg/kg; the NOAEL from this study was 300 µg/kg.

The anticipated MABEL in human was evaluated using a translational PK/PD model of cynomolgus monkey PK of the IL-2 fusion protein and resulting drug effect (expansion of T_{reg} , reported as a percentage of $CD4^+$ cells, $\%T_{reg}/CD4^+$) scaled based upon allometric principles to humans. A single SC dose of 1 µg/kg is predicted to result in a maximum $\%T_{reg}/CD4^+$ of 9.6%, which is approximately 2-fold greater than the baseline value of 4.7%, identified as the in vivo MABEL. This further aligns with the in vitro MABEL, identified as the EC_{25} of 2.8 ng/ml, in an IL-2 signaling assay (in vitro pSTAT5 assay) in human T_{reg} . The serum concentrations of the IL-2 fusion protein for a single SC dose of 1 µg/kg are not predicted to exceed the in vitro pSTAT5 assay half maximal effective concentration (EC_{50} ; 0.1 nM = 8.4 ng/ml). The maximum (peak) plasma drug concentration (C_{max}) at the 1 µg/kg dose is predicted to be 2.9 ng/ml which is in line with the in vitro EC_{25} (2.8 ng/ml), and the predicted time at EC_{25} is less than 1 day. As the MABEL was defined based on the EC_{25} , a dose of 1 µg/kg is not expected to exceed the EC_{50} , and the C_{max} is expected to be transiently at the EC_{25} . Therefore, based on the simulated human concentrations, in vitro pharmacology assay, and the impact on predicted $\%T_{reg}/CD4^+$, 1 µg/kg was identified as the MABEL, and the starting dose for the SAD.

The planned dose levels of 4, 8, 16, and 32 µg/kg for Cohorts 2, 3, 4, and 5, respectively, in Part A were also selected from the PK/PD model. The dose increase between any 2 sequential cohorts does not exceed 4-fold, and the maximum dose does not exceed 100 µg/kg.

Number of Participants

In Part A, approximately 40 healthy participants (5 cohorts of 8 participants) are randomly assigned to study intervention. In Part B, up to 36 participants (3 cohorts of 12 participants) with an autoimmune disease are enrolled. During the study, additional participants may be included.

Intervention Groups and Duration

In Part A, participants in each cohort receive a single SC dose of the IL-2 fusion protein or placebo on Day 1. The starting dose in Part A is 1 µg/kg. The proposed doses for Part A are 1, 4, 8, 16, and 32 µg/kg in Cohorts 1, 2, 3, 4, and 5, respectively. The unit dose strength is 5 mg/mL.

The dosing frequency in Cohorts 1 and 2 in Part B is once every 2 weeks for 8 weeks (total of 4 doses). The doses for Cohorts 1 and 2 in Part B are derived from Part A. The dosing frequency for

Cohort 3 in Part B is determined from Cohorts 1 and 2 of Part B, and may be increased to once every week for 8 weeks (up to 8 doses). The unit dose strength is 5 mg/mL.

Summary of Key Inclusion and Exclusion Criteria

5 *Inclusion Criteria*

Male or female participant between 18 and 55 years of age, inclusive, at the screening visit (Part A and Part B [participants with AIH, FSGS, and AA]) or between 18 and 75 years of age, inclusive, at the screening visit (Part B [participants with SLE]). Body mass index between 17 and 35 kg/m², inclusive, at the screening visit.

10

Additional inclusion criteria

- Part A: Healthy, as determined by prestudy medical evaluation (medical history, physical examination, vital signs, 12-lead electrocardiogram, and clinical laboratory evaluations), as judged by the principal investigator.
- 15 • Part B (participants with SLE only): Diagnosis of adult SLE according to the 2019 American College of Rheumatology classification criteria for at least 6 months prior to signing the informed consent form (ICF) and an estimated glomerular filtration rate (eGFR) ≥ 30 mL/min/1.73 m² (calculated using the Chronic Kidney Disease Epidemiology Collaboration [CKD-EPI] formula [2021]).
- 20 • Part B (participants with AIH only): Adult meeting criteria for autoimmune hepatitis (simplified diagnostic criteria) and must have completed induction therapy with standard of care (e.g., steroids) and be on maintenance therapy (e.g., azathioprine and/or low dose steroids).
- Part B (participants with FSGS only): History of biopsy-proven FSGS or minimal change disease, at least one prior episode of nephrotic syndrome (defined as 24-hour urine protein > 3.5 g/day and serum albumin < 3.0 g/dL), and at least one prior episode of partial or complete remission in response to corticosteroid therapy. Estimated glomerular filtration rate ≥ 30 mL/min/1.73 m². At screening, 24-hour urine protein ≥ 1 g/day or urine protein/creatinine ratio (uPCR) > 0.75 g/g.
- 25 • Part B (participants with AA only): Severity of Alopecia Tool score between 25 and 95 at screening. Current episode of AA is > 24 weeks (without evidence of spontaneous terminal hair regrowth at the time of screening and first treatment, ie, no more than 10% regrowth), but ≤ 5
- 30 years (from onset of current episode of severe scalp hair loss).

Key Exclusion Criteria

- Receipt of high dose corticosteroid therapy within 4 weeks prior to screening as either
- 35 (a) intravenous (IV) pulse corticosteroid therapy or (b) daily oral corticosteroid therapy of ≥ 1 mg/kg or 80 mg/day prednisone (or equivalent), receipt of belimumab within 6 months prior to screening,

history of treatment with rituximab or ocrelizumab (or other B cell-depleting agent) within 12 months prior to screening, history of cytotoxic medications (e.g., cyclophosphamide) within the preceding 12 months, and receipt of blood products within 6 months prior to screening.

Participants with uncontrolled hypertension (systolic blood pressure [SBP] > 140 mmHg, diastolic blood pressure [DBP] > 90 mmHg in any position) or symptomatic hypotension, any chronic infectious disease, or participants with a positive urine drug or alcohol breath screen test result at screening or Day -1.

Current symptoms of infection, diagnosis of Coronavirus Disease 2019 (COVID-19) (reverse transcription polymerase chain reaction [RT-PCR], antigen testing, or clinical diagnosis) in 21 days prior to screening, or ongoing diagnosis of 'Long-COVID' symptoms due to a prior COVID-19 infection.

Received a vaccination, other than COVID-19 vaccination, during the 30 days prior to administration of the first dose of study intervention. A COVID-19 vaccination cannot be received within 7 days prior to the first dose of study intervention and until 14 days after the last dose.

Additional exclusion criteria

- Part B (participants with SLE only): Presence of life- or organ-threatening manifestations of lupus requiring intense immunosuppressive therapy, organ support systems, or plasmapheresis. Lupus cerebritis, or active severe or unstable neuropsychiatric SLE.
- Part B (participants with AIH only): Advanced cirrhosis/liver disease.
- Part B (participants with FSGS only): Steroid resistant nephrotic syndrome defined as absence of complete or partial remission following at least 12 weeks of full dose corticosteroid therapy. Known secondary causes of FSGS (e.g., genetic/familial, viral, reflux uropathy, toxic causes [e.g., bisphosphonates]).
- Part B (participants with AA only): Participant has concomitant hair loss of another form, including but not limited to traction alopecia, central centrifugal cicatricial alopecia, lichen planopilaris, frontal fibrosing alopecia, or androgenetic alopecia. Presence of other severe autoimmune diseases – requiring additional immunosuppressive treatment.

INCORPORATION BY REFERENCE

All publications, patents, and Accession numbers mentioned herein are hereby incorporated by reference in their entirety as if each individual publication or patent was specifically and individually indicated to be incorporated by reference.

EQUIVALENTS

- While specific embodiments of the subject invention have been discussed, the above specification is illustrative and not restrictive. Many variations of the invention will become apparent to those skilled in the art upon review of this specification and the claims below. The full scope of the
- 5 invention should be determined by reference to the claims, along with their full scope of equivalents, and the specification, along with such variations.

TABLE 9. SEQUENCE LISTING (AMINO ACID)

SEQ ID NO	Description	Substitutions	Sequence (amino acid)
Exemplary IL-2 Variants (Muteins)			
1	IL2 C125S	C125S	APTSSSTKKTKQLQLEHLLLDLQMIINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEEVLNLAQSKNPHLRPRDLISNINVIIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLT
2	Stabilized IL-2	V69A/Q74P/C125S	APTSSSTKKTKQLQLEHLLLDLQMIINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEEALNLAPSKNPHLRPRDLISNINVIIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLT
3	IL2-037	H16D/V69A/Q74P/C125S	APTSSSTKKTKQLQLEDLLDLQMIINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEEALNLAPSKNPHLRPRDLISNINVIIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLT
4	IL2-062	H16N/V69A/Q74P/C125S	APTSSSTKKTKQLQLENLLDLQMIINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEEALNLAPSKNPHLRPRDLISNINVIIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLT
5	IL2-118	H16L/V69A/Q74P/C125S	APTSSSTKKTKQLQLELLLDLQMIINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEEALNLAPSKNPHLRPRDLISNINVIIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLT
6	IL2-035	I28T/V69A/Q74P/C125S	APTSSSTKKTKQLQLEHLLLDLQMIINGTNNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEEALNLAPSKNPHLRPRDLISNINVIIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLT
7	IL2-073	V69A/Q74P/D84V/C125S	APTSSSTKKTKQLQLEHLLLDLQMIINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEEALNLAPSKNPHLRPRDLISNINVIIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLT
8	IL2-077	V69A/Q74P/S87R/C125S	APTSSSTKKTKQLQLEHLLLDLQMIINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEEALNLAPSKNPHLRPRDLISNINVIIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLT
9	IL2-043	V69A/Q74P/N88L/C125S	APTSSSTKKTKQLQLEHLLLDLQMIINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEEALNLAPSKNPHLRPRDLISNINVIIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLT
10	IL2-036	V69A/Q74P/N88S/C125S	APTSSSTKKTKQLQLEHLLLDLQMIINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEEALNLAPSKNPHLRPRDLISNINVIIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLT
11	IL2-068	V69A/Q74P/I92S/C125S	APTSSSTKKTKQLQLEHLLLDLQMIINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEEALNLAPSKNPHLRPRDLISNINVSIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLT
12	IL2-106	K35E/V69A/Q74P/C125S	APTSSSTKKTKQLQLEHLLLDLQMIINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEEALNLAPSKNPHLRPRDLISNINVIIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLT

13	IL2-107	K35E/H16N/V69A/ Q74P/C125S	APTSSTKKTQLQLEHLLDLDLQMIINGINNYKNPELTRMLTFKPYMPKKATELKHLLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVIVLELKGSETTFMCEYADETATIVEFLNRWITFSQSIIISLT
14	IL2-119	K35E/H16L/V69A/ Q74P/C125S	APTSSTKKTQLQLEHLLDLDLQMIINGINNYKNPELTRMLTFKPYMPKKATELKHLLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVIVLELKGSETTFMCEYADETATIVEFLNRWITFSQSIIISLT
15	K35E/D84V mutuin	K35E/D84V/V69A/ Q74P/C125S	APTSSTKKTQLQLEHLLDLDLQMIINGINNYKNPELTRMLTFKPYMPKKATELKHLLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVIVLELKGSETTFMCEYADETATIVEFLNRWITFSQSIIISLT
16	IL2-115	K35E/I92S/V69A/Q 74P/C125S	APTSSTKKTQLQLEHLLDLDLQMIINGINNYKNPELTRMLTFKPYMPKKATELKHLLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVSVLELKGSETTFMCEYADETATIVEFLNRWITFSQSIIISLT
17	IL2-109	R38Q/V69A/Q74P/ C125S	APTSSTKKTQLQLEHLLDLDLQMIINGINNYKNPKLTQMLTFKPYMPKKATELKHLLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVIVLELKGSETTFMCEYADETATIVEFLNRWITFSQSIIISLT
18	IL2-113	R38Q/H16N/V69A/ Q74P/C125S	APTSSTKKTQLQLEHLLDLDLQMIINGINNYKNPKLTQMLTFKPYMPKKATELKHLLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVIVLELKGSETTFMCEYADETATIVEFLNRWITFSQSIIISLT
19	IL2-120	R38Q/H16L/V69A/ Q74P/C125S	APTSSTKKTQLQLEHLLDLDLQMIINGINNYKNPKLTQMLTFKPYMPKKATELKHLLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVIVLELKGSETTFMCEYADETATIVEFLNRWITFSQSIIISLT
20	R38Q/D84 V mutuin	R38Q/D84V/V69A/ Q74P/C125S	APTSSTKKTQLQLEHLLDLDLQMIINGINNYKNPKLTQMLTFKPYMPKKATELKHLLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVIVLELKGSETTFMCEYADETATIVEFLNRWITFSQSIIISLT
21	IL2-116	R38Q/I92S/Q74P/C 125S	APTSSTKKTQLQLEHLLDLDLQMIINGINNYKNPKLTQMLTFKPYMPKKATELKHLLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVSVLELKGSETTFMCEYADETATIVEFLNRWITFSQSIIISLT
22	IL2-088	R38N/V69A/Q74P/ C125S	APTSSTKKTQLQLEHLLDLDLQMIINGINNYKNPKLTQMLTFKPYMPKKATELKHLLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVIVLELKGSETTFMCEYADETATIVEFLNRWITFSQSIIISLT
23	IL2-097	R38N/H16N/V69A/ Q74P/C125S	APTSSTKKTQLQLEHLLDLDLQMIINGINNYKNPKLTQMLTFKPYMPKKATELKHLLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVIVLELKGSETTFMCEYADETATIVEFLNRWITFSQSIIISLT
24	R38N/H16L mutuin	R38N/H16L/V69A/ Q74P/C125S	APTSSTKKTQLQLEHLLDLDLQMIINGINNYKNPKLTQMLTFKPYMPKKATELKHLLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVIVLELKGSETTFMCEYADETATIVEFLNRWITFSQSIIISLT
25	IL2-098	R38N/D84V/V69A/ Q74P/C125S	APTSSTKKTQLQLEHLLDLDLQMIINGINNYKNPKLTQMLTFKPYMPKKATELKHLLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVIVLELKGSETTFMCEYADETATIVEFLNRWITFSQSIIISLT
26	IL2-100	R38N/I92S/Q74P/C 125S	APTSSTKKTQLQLEHLLDLDLQMIINGINNYKNPKLTQMLTFKPYMPKKATELKHLLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVSVLELKGSETTFMCEYADETATIVEFLNRWITFSQSIIISLT
27	IL2-090	R38E/V69A/Q74P/ C125S	APTSSTKKTQLQLEHLLDLDLQMIINGINNYKNPKLTQMLTFKPYMPKKATELKHLLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVIVLELKGSETTFMCEYADETATIVEFLNRWITFSQSIIISLT

28	IL2-092	F42K/V69A/Q74P/ C125S	APTSSTKKTQLQLEHLLLDLQMI ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLT
29	IL2-110	F42Q/V69A/Q74P/ C125S	APTSSTKKTQLQLEHLLLDLQMI ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLT
30	IL2-Inactive	F42A/Y45A/L72G/ N88D/V69A/Q74P/ C125S	APTSSTKKTQLQLEHLLLDLQMI ALNGAPSKNPHLRPRDLISDINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLT
31	IL2-99	R38N/S87R/V69A/ Q74P/C125S	APTSSTKKTQLQLEHLLLDLQMI ALNLAPSKNPHLRPRDLIRNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLT
32	IL2-101	R38E/H16N/V69A/ Q74P/C125S	APTSSTKKTQLQLEHLLLDLQMI ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLT
33	IL2-102	R38E/D84V/V69A/ Q74P/C125S	APTSSTKKTQLQLEHLLLDLQMI ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLT
34	IL2-103	R38E/S87R/V69A/ Q74P/C125S	APTSSTKKTQLQLEHLLLDLQMI ALNLAPSKNPHLRPRDLIRNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLT
35	IL2-104	R38E/I92S/V69A/Q 74P/C125S	APTSSTKKTQLQLEHLLLDLQMI ALNLAPSKNPHLRPRDLISNINVS VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLT
36	IL2-114	F42Q/H16N/V69A/ Q74P/C125S	APTSSTKKTQLQLEHLLLDLQMI ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLT
37	IL2-117	F42Q/I92S/V69A/Q 74P/C125S	APTSSTKKTQLQLEHLLLDLQMI ALNLAPSKNPHLRPRDLISNINVS VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLT
38	IL2-108	K35E/R38N/H16N/ V69A/Q74P/C125S	APTSSTKKTQLQLEHLLLDLQMI ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLT
1000	IL2-124	T3A/H16N/V69A/Q 74P/C125S	APASSSTKKTQLQLEHLLLDLQMI ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLT
1001	IL2-127	T3A/H16L/V69A/Q 74P/C125S	APASSSTKKTQLQLEHLLLDLQMI ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLT
1002	IL2-130	T3A/I92S/V69A/Q7 4P/C125S	APASSSTKKTQLQLEHLLLDLQMI ALNLAPSKNPHLRPRDLISNINVS VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLT
Exemplary Fc Regions			

39	IgG1 Fc		DKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYITLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSGFFLYSKLTVDKSRWQQGNVFS
40	IgG1 Fc N297G	N297G	CSVMHEALHNHYTQKSLSLSPGK
41	IgG1 Fc LALAPG	L234A/L235A/P329 G	DKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYSGSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYITLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSGFFLYSKLTVDKSRWQQGNVFS
42	IgG1 Fc N297G Mut215	N297G/T307Q/Q311 V/A378V	CSVMHEALHNHYTQKSLSLSPGK
43	IgG1 Fc LALAPG Mut215	L234A/L235A/P329 G/T307Q/Q311V/A378V	DKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYSGSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYITLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSGFFLYSKLTVDKSRWQQGNVFS
44	IgG4 Fc S228P	S228P	CSVMHEALHNHYTQKSLSLSPGK
45	IgG4 Fc S228P/R409 K	S228P/R409K	ESKYGPPCPCPAPEFLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVQFNWYVDGVEVHN AKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTI SKAKGQPREPQVYITLPPS QEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSGFFLYSKLTVDKSRWQEGNV FSCVMHEALHNHYTQKSLSLSPGK
46	IgG4 Fc S228P Mut215	S228P/T307Q/Q311 V/A378V	ESKYGPPCPCPAPEFLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVQFNWYVDGVEVHN AKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTI SKAKGQPREPQVYITLPPS QEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSGFFLYSKLTVDKSRWQEGNV FSCVMHEALHNHYTQKSLSLSPGK

47	IgG4 Fc S228P/R409 K Mut215	S228P/R409K/T307 Q/Q311V/A378V	ESKYGPPCPAPEFLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSDQEDPEVQFNWYVDGVEVHN AKTKPREEQNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIISKAKGQPREPQVYTLPPS QEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPPVLDSDGSFFLYSKLTVDKSRWQEGNV FSCVMHEALHNHYTQKSLSLGLGK
1003	IgG1 Fc N297G m3 allotype		DKTHTCPPCPAPELGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHN TKPREEQYGSYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTIISKAKGQPREPQVYTLPPSRE EMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFS CSVMHEALHNHYTQKSLSLSPGK
Linkers			
48	(G4S)4 linker		GGGGGGGGGGGGGGGGGG
49	Linker v1		AGSGGGGGGGGSPVPSTPPTNSSSTPPTPSPSASGS
50	Linker v2		AGSGGGGGGGGSPVPSTPPTPSPSTPPTPSPSGSGNSSGGSGGS
51	Linker v3		AGSGNSSGGGGSGSGNSSGGSGSPVPSTPPTPSPSTPPTPSPSASGS
52	Linker v4		AEAAAKEAAAKEAAAKEAAKAGS
53	Linker v5		GTTNPAPPASSSTTGSSTPTNPPAGS
54	Linker v6		AGSPGAGNGNGNPPPTTTTSSAPATTTTASAGS
55	Linker v7		GGGSAGGGGAGGGGAGGGAGS
Exemplary IL-2-Fc Fusion Proteins (IgG1 Fc N297G)			
56	IL2 C125S fused to IgG1 Fc N297G		APTSSTKTKTQLQLEHLLLDLQMLINGINNYKNPKLTRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE VLNLAQSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGGGGGGGGSKDTHTCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPPVLDSDGSFFLY SKLTVDKSRWQQGNVFSQVMHEALHNHYTQKSLSLSPGK
57	Stabilized IL-2 fused to IgG1 Fc N297G		APTSSTKTKTQLQLEHLLLDLQMLINGINNYKNPKLTRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAQSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGGGGGGGGSKDTHTCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPPVLDSDGSFFLY SKLTVDKSRWQQGNVFSQVMHEALHNHYTQKSLSLSPGK

58	IL2-037 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLDLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGDKTHTCPPCPAPPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSPFLY SKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK </p>
59	IL2-062 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLDLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGDKTHTCPPCPAPPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSPFLY SKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK </p>
60	IL2-118 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLDLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGDKTHTCPPCPAPPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSPFLY SKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK </p>
61	IL2-035 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLDLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGDKTHTCPPCPAPPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSPFLY SKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK </p>
62	IL2-073 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLDLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGDKTHTCPPCPAPPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSPFLY SKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK </p>

63	IL2-077 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI RNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
64	IL2-043 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SLINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
65	IL2-036 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SSINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
66	IL2-068 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVS VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
67	IL2-106 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>

68	IL2-107 fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLEHLLDLQMLNGINNYKNPELTRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLDLQMLNGINNYKNPELTRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLDLQMLNGINNYKNPELTRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
69	IL2-119 fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLEHLLDLQMLNGINNYKNPELTRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
70	K35E/D84V mutant fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLEHLLDLQMLNGINNYKNPELTRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
71	IL2-115 fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLEHLLDLQMLNGINNYKNPELTRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
72	IL2-109 fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLEHLLDLQMLNGINNYKNPELTRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

73	IL2-113 fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLEHLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
74	IL2-120 fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLEHLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
75	R38Q/D84V mutant fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLEHLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
76	IL2-116 fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLEHLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
77	IL2-088 fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLEHLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

78	IL2-097 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
79	R38N/H16L mutcin fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
80	IL2-098 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
81	IL2-100 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
82	IL2-090 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>

83	IL2-092 fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTKFPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTKFPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTKFPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
84	IL2-110 fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTKFPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
85	IL2-Inactive fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTKFPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
86	IL2-99 fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTKFPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
87	IL2-101 fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTKFPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

88	IL2-102 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSPFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
89	IL2-103 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSPFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
90	IL2-104 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSPFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
91	IL2-114 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSPFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
92	IL2-117 fused to IgG1 Fc N297G	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSPFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>

93	IL2-108 fused to IgG1 Fc N297G	<p>APTSSTKKTQLQLENLLDLQMI LINGINNYKNPKL TRMLTFKPYMPK KATELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG</p> <p>GGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLPPKPKDTLMI SRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKA</p> <p>KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY</p> <p>SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
1004	IL2-124 fused to IgG1 Fc N297G allotype m3	<p>APASSTKKTQLQLENLLDLQMI LINGINNYKNPKL TRMLTFKPYMPK KATELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG</p> <p>GGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLPPKPKDTLMI SRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKA</p> <p>KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY</p> <p>SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
1005	IL2-127 fused to IgG1 Fc N297G allotype m3	<p>APASSTKKTQLQLENLLDLQMI LINGINNYKNPKL TRMLTFKPYMPK KATELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG</p> <p>GGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLPPKPKDTLMI SRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKA</p> <p>KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY</p> <p>SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
1006	IL2-130 fused to IgG1 Fc N297G allotype m3	<p>APASSTKKTQLQLENLLDLQMI LINGINNYKNPKL TRMLTFKPYMPK KATELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG</p> <p>GGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLPPKPKDTLMI SRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKA</p> <p>KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY</p> <p>SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
1007	IL2-062 fused to IgG1 Fc N297G allotype m3	<p>APTSSTKKTQLQLENLLDLQMI LINGINNYKNPKL TRMLTFKPYMPK KATELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG</p> <p>GGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLPPKPKDTLMI SRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKA</p> <p>KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY</p> <p>SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

1008	IL2-118 fused to IgG1 Fc N297G allotype m3	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAQSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAQSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
1009	IL2-068 fused to IgG1 Fc N297G allotype m3	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAQSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
IL-2 Fc Fusion Proteins (IgG1 Fc LALAPG)		
94	IL2 C125S fused to IgG1 Fc LALAPG	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE VLNLAQSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPEAAGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALGAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
95	Stabilized IL-2 fused to IgG1 Fc LALAPG	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAQSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPEAAGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALGAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
96	IL2-037 fused to IgG1 Fc LALAPG	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAQSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPEAAGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALGAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

97	IL2-062 fused to IgG1 Fc LALAPG	<p> APTSSSTKKTQLQLEHLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPEAAGGSPVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPI EKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
98	IL2-118 fused to IgG1 Fc LALAPG	<p> APTSSSTKKTQLQLEHLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPEAAGGSPVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPI EKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
99	IL2-035 fused to IgG1 Fc LALAPG	<p> APTSSSTKKTQLQLEHLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPEAAGGSPVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPI EKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
100	IL2-073 fused to IgG1 Fc LALAPG	<p> APTSSSTKKTQLQLEHLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPEAAGGSPVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPI EKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>
101	IL2-077 fused to IgG1 Fc LALAPG	<p> APTSSSTKKTQLQLEHLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPEAAGGSPVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPI EKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK </p>

102	IL2-043 fused to IgG1 Fc LALAPG	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISLINVIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPIEKTIISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSPFLY SKLTVDKSRWQOGNVFSCSVMEALHNHYTQKSLSLSPGK </p>
103	IL2-036 fused to IgG1 Fc LALAPG	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISLINVIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPIEKTIISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSPFLY SKLTVDKSRWQOGNVFSCSVMEALHNHYTQKSLSLSPGK </p>
104	IL2-068 fused to IgG1 Fc LALAPG	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISLINVIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPIEKTIISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSPFLY SKLTVDKSRWQOGNVFSCSVMEALHNHYTQKSLSLSPGK </p>
105	IL2-106 fused to IgG1 Fc LALAPG	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISLINVIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPIEKTIISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSPFLY SKLTVDKSRWQOGNVFSCSVMEALHNHYTQKSLSLSPGK </p>
106	IL2-107 fused to IgG1 Fc LALAPG	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISLINVIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPIEKTIISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSPFLY SKLTVDKSRWQOGNVFSCSVMEALHNHYTQKSLSLSPGK </p>

107	IL2-119 fused to IgG1 Fc LALAPG	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG</p> <p>GSGGGSGGGSGGGGSKTHTCP CPAPEAAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPI EKTTISKA</p> <p>KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY</p> <p>SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
108	K35E/D84V mutcin fused to IgG1 Fc LALAPG	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG</p> <p>GSGGGSGGGSGGGGSKTHTCP CPAPEAAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPI EKTTISKA</p> <p>KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY</p> <p>SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
109	IL2-115 fused to IgG1 Fc LALAPG	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG</p> <p>GSGGGSGGGSGGGGSKTHTCP CPAPEAAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPI EKTTISKA</p> <p>KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY</p> <p>SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
110	IL2-109 fused to IgG1 Fc LALAPG	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKA TELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG</p> <p>GSGGGSGGGSGGGGSKTHTCP CPAPEAAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPI EKTTISKA</p> <p>KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY</p> <p>SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
111	IL2-113 fused to IgG1 Fc LALAPG	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKA TELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG</p> <p>GSGGGSGGGSGGGGSKTHTCP CPAPEAAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPI EKTTISKA</p> <p>KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY</p> <p>SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

112	IL2-120 fused to IgG1 Fc LALAPG	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGSPVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPI EKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
113	R38Q/D84V mutant fused to IgG1 Fc LALAPG	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGSPVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPI EKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
114	IL2-116 fused to IgG1 Fc LALAPG	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGSPVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPI EKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
115	IL2-088 fused to IgG1 Fc LALAPG	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGSPVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPI EKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
116	IL2-097 fused to IgG1 Fc LALAPG	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGSPVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPI EKTISKAK KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

117	R38N/H16L mutein fused to IgG1 Fc LALAPG	<p>APTSSSTKKTQLEHLLELLDQMI LINGINNYKNPKLTNMLTFKFYMPKKATELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFQSQSI I STLTGGG</p> <p>GGGGGGGGGGGGSDKTHTCPPCPAPEAAGPSVFLFPKPKD TLMISRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALGAP I EKTITSKA</p> <p>KGPQREPQVYITLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFPLY</p> <p>SKLTVDKSRWQOGNVFSCSVMH EALHNHYTQKSLSLSPGK</p>
118	IL2-098 fused to IgG1 Fc LALAPG	<p>APTSSSTKKTQLEHLLELLDQMI LINGINNYKNPKLTNMLTFKFYMPKKATELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRVLI SININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFQSQSI I STLTGGG</p> <p>GGGGGGGGGGGGSDKTHTCPPCPAPEAAGPSVFLFPKPKD TLMISRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALGAP I EKTITSKA</p> <p>KGPQREPQVYITLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFPLY</p> <p>SKLTVDKSRWQOGNVFSCSVMH EALHNHYTQKSLSLSPGK</p>
119	IL2-100 fused to IgG1 Fc LALAPG	<p>APTSSSTKKTQLEHLLELLDQMI LINGINNYKNPKLTNMLTFKFYMPKKATELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SININVSVPLELKGSETTFMCEYADETAT IVEFLNRWITFQSQSI I STLTGGG</p> <p>GGGGGGGGGGGGSDKTHTCPPCPAPEAAGPSVFLFPKPKD TLMISRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALGAP I EKTITSKA</p> <p>KGPQREPQVYITLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFPLY</p> <p>SKLTVDKSRWQOGNVFSCSVMH EALHNHYTQKSLSLSPGK</p>
120	IL2-090 fused to IgG1 Fc LALAPG	<p>APTSSSTKKTQLEHLLELLDQMI LINGINNYKNPKLTEM LTFKFYMPKKATELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFQSQSI I STLTGGG</p> <p>GGGGGGGGGGGGSDKTHTCPPCPAPEAAGPSVFLFPKPKD TLMISRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALGAP I EKTITSKA</p> <p>KGPQREPQVYITLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFPLY</p> <p>SKLTVDKSRWQOGNVFSCSVMH EALHNHYTQKSLSLSPGK</p>
121	IL2-092 fused to IgG1 Fc LALAPG	<p>APTSSSTKKTQLEHLLELLDQMI LINGINNYKNPKLT RMLTKKFYMPKKATELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFQSQSI I STLTGGG</p> <p>GGGGGGGGGGGGSDKTHTCPPCPAPEAAGPSVFLFPKPKD TLMISRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALGAP I EKTITSKA</p> <p>KGPQREPQVYITLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFPLY</p> <p>SKLTVDKSRWQOGNVFSCSVMH EALHNHYTQKSLSLSPGK</p>

122	IL2-110 fused to IgG1 Fc LALAPG	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTQKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPEAAGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALGAPIEKTIISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTAKPAMPKKA TELKHLQCLEEEELKPLEE ALNGAPSKNFHLRPRDLISDINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPEAAGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALGAPIEKTIISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLIRNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPEAAGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALGAPIEKTIISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK</p>
123	IL2-Inactive fused to IgG1 Fc LALAPG	
124	IL2-99 fused to IgG1 Fc LALAPG	
125	IL2-101 fused to IgG1 Fc LALAPG	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPEAAGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALGAPIEKTIISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK</p>
126	IL2-102 fused to IgG1 Fc LALAPG	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLISININVIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPEAAGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALGAPIEKTIISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK</p>

127	IL2-103 fused to IgG1 Fc LALAPG	APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLT EMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAP IEKTI SKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK
128	IL2-104 fused to IgG1 Fc LALAPG	APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLT EMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAP IEKTI SKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK
129	IL2-114 fused to IgG1 Fc LALAPG	APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLT RMLTQKFYMPKKA TELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAP IEKTI SKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK
130	IL2-117 fused to IgG1 Fc LALAPG	APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLT RMLTQKFYMPKKA TELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAP IEKTI SKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK
131	IL2-108 fused to IgG1 Fc LALAPG	APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTNMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGSDKTHTCPPCPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAP IEKTI SKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK
Exemplary IL-2-Fc Fusion Proteins (IgG1 Fc N297G Mut215)		

132	IL2 C125S fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE VNLAQSKNPHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLVDWMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
133	Stabilized IL-2 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLVDWMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
134	IL2-037 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLVDWMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
135	IL2-062 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLVDWMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
136	IL2-118 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLVDWMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

137	IL2-035 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI L NGTNNYKNPKL TRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKDTHTCPPCAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI L NGINNNYKNPKL TRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKDTHTCPPCAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI L NGINNNYKNPKL TRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLIRNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKDTHTCPPCAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
138	IL2-073 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI L NGTNNYKNPKL TRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKDTHTCPPCAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
139	IL2-077 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI L NGTNNYKNPKL TRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLIRNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKDTHTCPPCAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
140	IL2-043 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI L NGINNNYKNPKL TRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISLINV I VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKDTHTCPPCAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
141	IL2-036 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI L NGINNNYKNPKL TRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAPSKNPHLRPRDLISSINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKDTHTCPPCAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

142	IL2-068 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVS VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
143	IL2-106 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
144	IL2-107 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
145	IL2-119 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
146	K35E/D84V mutcin fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPELLGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

147	IL2-115 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVSIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVLHVDWMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD IVVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVSIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVLHVDWMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD IVVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVSIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVLHVDWMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD IVVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
148	IL2-109 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVSIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVLHVDWMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD IVVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
149	IL2-113 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVSIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVLHVDWMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD IVVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
150	IL2-120 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVSIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVLHVDWMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD IVVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
151	R38Q/D84V muicin fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVSIVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVLHVDWMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD IVVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

152	IL2-116 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVSVELEKGETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
153	IL2-088 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
154	IL2-097 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
155	R38N/H16L mutein fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
156	IL2-098 fused to IgG1 Fc N297G Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

157	IL2-100 fused to IgG1 Fc N297G Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLI SNINVSIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TEMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTKFYPMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTQKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
158	IL2-090 fused to IgG1 Fc N297G Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TEMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
159	IL2-092 fused to IgG1 Fc N297G Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTKFYPMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
160	IL2-110 fused to IgG1 Fc N297G Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTQKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
161	IL2-Inactive fused to IgG1 Fc N297G Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TAPMPKKATELKHLCLEEEELKPLEE ALNGAPSKNPHLRPRDLI SDINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

162	IL2-99 fused to IgG1 Fc N297G Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLIRNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKDTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLIRNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKDTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLIRNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKDTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
163	IL2-101 fused to IgG1 Fc N297G Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLIRNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKDTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
164	IL2-102 fused to IgG1 Fc N297G Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLIRNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKDTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
165	IL2-103 fused to IgG1 Fc N297G Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLIRNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKDTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
166	IL2-104 fused to IgG1 Fc N297G Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLIRNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKDTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

167	IL2-114 fused to IgG1 Fc N297G Mut215	APTSSTKTKTQLQLENLLLDLQMI LINGINNYKNPKLTRMLTQKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAQSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGDKTHTCPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDWLNKGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK
168	IL2-117 fused to IgG1 Fc N297G Mut215	APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTQKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAQSKNPFHLRPRDLISININVS VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGDKTHTCPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDWLNKGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK
169	IL2-108 fused to IgG1 Fc N297G Mut215	APTSSTKTKTQLQLENLLLDLQMI LINGINNYKNPELTNMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAQSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGDKTHTCPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYGSTYRVVSVLQVHLHVDWLNKGKEYCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK
Exemplary IL-2Fc Fusion Proteins (IgG1 Fc LALAPG Mut215)		
170	IL2 C125S fused to IgG1 Fc LALAPG Mut215	APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTQKPYMPKKATELKHQLQCLEEEELKPLEE VLNLAQSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG GSGGGSGGGSGGGGDKTHTCPCPAPEAAGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDWLNKGKEYCKVSNKALGAPIEKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK

171	Stabilized IL-2 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLDQLQMLINGINNYKNPKLTRMLTFKFYMPKKATELKHLQCLEEEELKPLEE</p> <p>ALNLAPSKNFHLRPRDLISININVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLTGGG</p> <p>GGGGGGGGGGGSDKTHTCPCPAPEAAGPSVFLFPKPKDITLMSRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVLHVDWLNGKEYCKVSNKALGAPIEKITISKA</p> <p>KGPREPQVYITLPPSRDELTKNQVSLTCLVKGFYPSDIVVEWESNGQPENNYKTTTPVLDSDSGSFPLY</p> <p>SKLTVDKSRWQGNVFCSCVMHEALHNHYTQKSLSLSPGK</p>
172	IL2-037 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLDQLQMLINGINNYKNPKLTRMLTFKFYMPKKATELKHLQCLEEEELKPLEE</p> <p>ALNLAPSKNFHLRPRDLISININVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLTGGG</p> <p>GGGGGGGGGGGSDKTHTCPCPAPEAAGPSVFLFPKPKDITLMSRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVLHVDWLNGKEYCKVSNKALGAPIEKITISKA</p> <p>KGPREPQVYITLPPSRDELTKNQVSLTCLVKGFYPSDIVVEWESNGQPENNYKTTTPVLDSDSGSFPLY</p> <p>SKLTVDKSRWQGNVFCSCVMHEALHNHYTQKSLSLSPGK</p>
173	IL2-062 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLDQLQMLINGINNYKNPKLTRMLTFKFYMPKKATELKHLQCLEEEELKPLEE</p> <p>ALNLAPSKNFHLRPRDLISININVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLTGGG</p> <p>GGGGGGGGGGGSDKTHTCPCPAPEAAGPSVFLFPKPKDITLMSRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVLHVDWLNGKEYCKVSNKALGAPIEKITISKA</p> <p>KGPREPQVYITLPPSRDELTKNQVSLTCLVKGFYPSDIVVEWESNGQPENNYKTTTPVLDSDSGSFPLY</p> <p>SKLTVDKSRWQGNVFCSCVMHEALHNHYTQKSLSLSPGK</p>
174	IL2-118 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLDQLQMLINGINNYKNPKLTRMLTFKFYMPKKATELKHLQCLEEEELKPLEE</p> <p>ALNLAPSKNFHLRPRDLISININVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLTGGG</p> <p>GGGGGGGGGGGSDKTHTCPCPAPEAAGPSVFLFPKPKDITLMSRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVLHVDWLNGKEYCKVSNKALGAPIEKITISKA</p> <p>KGPREPQVYITLPPSRDELTKNQVSLTCLVKGFYPSDIVVEWESNGQPENNYKTTTPVLDSDSGSFPLY</p> <p>SKLTVDKSRWQGNVFCSCVMHEALHNHYTQKSLSLSPGK</p>
175	IL2-035 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLDQLQMLINGINNYKNPKLTRMLTFKFYMPKKATELKHLQCLEEEELKPLEE</p> <p>ALNLAPSKNFHLRPRDLISININVLELKGSETTFMCEYADETATIVFELNRWITFSQSIISTLTGGG</p> <p>GGGGGGGGGGGSDKTHTCPCPAPEAAGPSVFLFPKPKDITLMSRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVLHVDWLNGKEYCKVSNKALGAPIEKITISKA</p> <p>KGPREPQVYITLPPSRDELTKNQVSLTCLVKGFYPSDIVVEWESNGQPENNYKTTTPVLDSDSGSFPLY</p> <p>SKLTVDKSRWQGNVFCSCVMHEALHNHYTQKSLSLSPGK</p>

176	IL2-073 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE</p> <p>ALNLAPSKNPHLRPRDLISININVIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG</p> <p>SGGGSGGGSGGGGSKDTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPIEKTIISKA</p> <p>KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY</p> <p>SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
177	IL2-077 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE</p> <p>ALNLAPSKNPHLRPRDLIRININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG</p> <p>SGGGSGGGSGGGGSKDTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPIEKTIISKA</p> <p>KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY</p> <p>SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
178	IL2-043 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE</p> <p>ALNLAPSKNPHLRPRDLISLINIVIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG</p> <p>SGGGSGGGSGGGGSKDTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPIEKTIISKA</p> <p>KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY</p> <p>SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
179	IL2-036 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE</p> <p>ALNLAPSKNPHLRPRDLISSININVIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG</p> <p>SGGGSGGGSGGGGSKDTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPIEKTIISKA</p> <p>KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY</p> <p>SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
180	IL2-068 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE</p> <p>ALNLAPSKNPHLRPRDLISININVSIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIISTLTGGG</p> <p>SGGGSGGGSGGGGSKDTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDP</p> <p>EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPIEKTIISKA</p> <p>KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY</p> <p>SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

181	IL2-106 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAAGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAAGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAAGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
182	IL2-107 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAAGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
183	IL2-119 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAAGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
184	K35E/D84V mutein fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAAGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
185	IL2-115 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAAGGPSVFLFPKPDKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

186	IL2-109 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
187	IL2-113 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
188	IL2-120 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
189	R38Q/D84V mutein fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
190	IL2-116 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

191	IL2-088 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
192	IL2-097 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
193	R38N/H16L mutein fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
194	IL2-098 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
195	IL2-100 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTTPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

196	IL2-090 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTKQFYPMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPEAAGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTKQFYPMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPEAAGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTKQFYPMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPEAAGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
197	IL2-092 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTKQFYPMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPEAAGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
198	IL2-110 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTKQFYPMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPEAAGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
199	IL2-Inactive fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTKQFYPMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPEAAGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
200	IL2-99 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTKQFYPMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI IISTLTGGG GSGGGSGGGSGGGGSKTHTCPCPAPEAAGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQVHLHVDMLNGKEYCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGGSFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

201	IL2-101 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLENLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQV LHV DMLNGKEYKCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQV LHV DMLNGKEYKCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p> <p>APTSSTKKTQLQLEHLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI RNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQV LHV DMLNGKEYKCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
202	IL2-102 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQV LHV DMLNGKEYKCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
203	IL2-103 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI RNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQV LHV DMLNGKEYKCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
204	IL2-104 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVS VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQV LHV DMLNGKEYKCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>
205	IL2-114 fused to IgG1 Fc LALAPG Mut215	<p>APTSSTKKTQLQLEHLLDLQMI LINGINNYKNPKLTEM LTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSI ISTLTGGG GSGGGSGGGSGGGGSKTHTCP CPAPEAAGGPSVFLFPKP KDTLMI SRTPEVTCVVVDVSHEDP EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLQV LHV DMLNGKEYKCKVSNKALGAPI EKTISKA KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSGFFLY SKLTVDKSRWQQGNV FSCSVMEALHNHYTQKSLSLSPGK</p>

206	IL2-117 fused to IgG1 Fc LALAPG Mut215	<p> APTSSSTKKTKQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T Q K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G G S D K T H T C P C P A P E A A G G P S V F L F P P K P K D T L M I S R T P E V T C V V D V S H E D P E V K F N W Y V D G V E V H N A K T K P R E E Q Y N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K A L G A P I E K T I S K A K G Q P R E P Q V Y T L P P S R D E L T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q Q G N V F S C S V M H E A L H N H Y T Q K S L S L S P G K </p>
207	IL2-108 fused to IgG1 Fc LALAPG Mut215	<p> APTSSSTKKTKQLQLEHLLLDLQMI L N G I N N Y K N P E L T N M L T F K P Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G G S D K T H T C P C P A P E A A G G P S V F L F P P K P K D T L M I S R T P E V T C V V D V S H E D P E V K F N W Y V D G V E V H N A K T K P R E E Q Y N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K A L G A P I E K T I S K A K G Q P R E P Q V Y T L P P S R D E L T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q Q G N V F S C S V M H E A L H N H Y T Q K S L S L S P G K </p>
Exemplary IL-2-Fc Fusion Proteins (IgG4 Fc S228P)		
208	IL2 C125S fused to IgG4 Fc S228P	<p> APTSSSTKKTKQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E V L N L A Q S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G G S E S K Y G P C P C P A P E F L G G P S V F L F P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S R L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
209	Stabilized IL-2 fused to IgG4 Fc S228P	<p> APTSSSTKKTKQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G G S E S K Y G P C P C P A P E F L G G P S V F L F P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S R L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>

210	IL2-037 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEDLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
211	IL2-062 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEDLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
212	IL2-118 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEDLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
213	IL2-035 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEDLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
214	IL2-073 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEDLLDLQMI LINGINNYKNPKL TRMLTFKPYMPKKA TELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>

215	IL2-077 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLIRNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
216	IL2-043 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISLINVIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
217	IL2-036 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISSINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
218	IL2-068 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISNINVSIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
219	IL2-106 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>

220	IL2-107 fused to IgG4 Fc S228P	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYPPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYPPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYPPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYPPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
221	IL2-119 fused to IgG4 Fc S228P	
222	K35E/D84V mutant fused to IgG4 Fc S228P	
223	IL2-115 fused to IgG4 Fc S228P	
224	IL2-109 fused to IgG4 Fc S228P	

225	IL2-113 fused to IgG4 Fc S228P	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p> <p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
226	IL2-120 fused to IgG4 Fc S228P	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
227	R38Q/D84V mutein fused to IgG4 Fc S228P	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
228	IL2-116 fused to IgG4 Fc S228P	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
229	IL2-088 fused to IgG4 Fc S228P	<p>APTSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>

230	IL2-097 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYTTLPSSQEEETKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
231	R38N/H16L mutant fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYTTLPSSQEEETKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
232	IL2-098 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYTTLPSSQEEETKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
233	IL2-100 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYTTLPSSQEEETKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
234	IL2-090 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNFHLRPRDLISNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYTTLPSSQEEETKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>

235	IL2-092 fused to IgG4 Fc S228P	APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S R L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K
236	IL2-110 fused to IgG4 Fc S228P	APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S R L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K
237	IL2-Inactive fused to IgG4 Fc S228P	APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T A F A M P K K A T E L K H L Q C L E E E L K P L E E A L N G A P S K N F H L R P R D L I S D I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S R L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K
238	IL2-99 fused to IgG4 Fc S228P	APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T N M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I R N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S R L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K
239	IL2-101 fused to IgG4 Fc S228P	APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T E M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S R L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K

240	IL2-102 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLT EMLTFKPYMPKKAT ELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ E DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTI S KAKGQPREPQVYTTLPQSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
241	IL2-103 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLT EMLTFKPYMPKKAT ELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI RNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ E DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTI S KAKGQPREPQVYTTLPQSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
242	IL2-104 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLT EMLTFKPYMPKKAT ELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVS VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ E DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTI S KAKGQPREPQVYTTLPQSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
243	IL2-114 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLT RMLTQKPYMPKKAT ELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ E DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTI S KAKGQPREPQVYTTLPQSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>
244	IL2-117 fused to IgG4 Fc S228P	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLT RMLTQKPYMPKKAT ELKHLQCLEEEELKPLEE ALNLAPSKNFHLRPRDLI SNINVS VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ E DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTI S KAKGQPREPQVYTTLPQSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLGK </p>

245	IL2-108 fused to IgG4 Fc S228P	APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAQSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGVFCVSMHEALHNHYTQKSLSLGLGK
Exemplary IL-2-Fc Fusion Proteins (IgG4 Fc S228P/R409K)		
246	IL2 C125S fused to IgG4 Fc S228P/R409K	APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE VLNLAQSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGVFCVSMHEALHNHYTQKSLSLGLGK
247	Stabilized IL-2 fused to IgG4 Fc S228P/R409K	APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAQSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGVFCVSMHEALHNHYTQKSLSLGLGK
248	IL2-037 fused to IgG4 Fc S228P/R409K	APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAQSKNPFHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGVFCVSMHEALHNHYTQKSLSLGLGK

249	IL2-062 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
250	IL2-118 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
251	IL2-035 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
252	IL2-073 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R V L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
253	IL2-077 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I R N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>

254	IL2-043 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYPKPTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SLINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
255	IL2-036 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYPKPTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SSINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
256	IL2-068 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYPKPTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVS VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
257	IL2-106 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYPKPTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
258	IL2-107 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYPKPTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>

259	IL2-119 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
260	K35E/D84V muticm fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
261	IL2-115 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
262	IL2-109 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
263	IL2-113 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>

264	IL2-120 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSKYGPCCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
265	R38Q/D84V mutcin fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSKYGPCCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
266	IL2-116 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSKYGPCCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
267	IL2-088 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSKYGPCCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
268	IL2-097 fused to IgG4 Fc S228P/R409K	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSKYGPCCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>

269	R38N/H16L mutein fused to IgG4 Fc S228P/R409K	<p> A P T S S T K K T Q L E H L L D L Q M I N G I N N Y K N P K L T N M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A I V E F L N R W I T F S Q S I I S T I T G G G G S G G G G G G G G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
270	IL2-098 fused to IgG4 Fc S228P/R409K	<p> A P T S S T K K T Q L E H L L L D L Q M I N G I N N Y K N P K L T N M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R V L I S N I N V I V L E L K G S E T T F M C E Y A D E T A I V E F L N R W I T F S Q S I I S T I T G G G G S G G G G G G G G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
271	IL2-100 fused to IgG4 Fc S228P/R409K	<p> A P T S S T K K T Q L E H L L L D L Q M I N G I N N Y K N P K L T N M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V S V L E L K G S E T T F M C E Y A D E T A I V E F L N R W I T F S Q S I I S T I T G G G G S G G G G G G G G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
272	IL2-090 fused to IgG4 Fc S228P/R409K	<p> A P T S S T K K T Q L E H L L L D L Q M I N G I N N Y K N P K L T E M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A I V E F L N R W I T F S Q S I I S T I T G G G G S G G G G G G G G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
273	IL2-092 fused to IgG4 Fc S228P/R409K	<p> A P T S S T K K T Q L E H L L L D L Q M I N G I N N Y K N P K L T R M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A I V E F L N R W I T F S Q S I I S T I T G G G G S G G G G G G G G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>

274	IL2-110 fused to IgG4 Fc S228P/R409K	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTQKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTIVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGVFNFSVMHEALHNHYTQKSLSLGLG</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTAKPAMPKKATELKHLCLEEEELKPLEE ALNGAPSKNFHLRPRDLI SDINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTIVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGVFNFSVMHEALHNHYTQKSLSLGLG</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI RNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTIVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGVFNFSVMHEALHNHYTQKSLSLGLG</p>
275	IL2-Inactive fused to IgG4 Fc S228P/R409K	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTQKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTIVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGVFNFSVMHEALHNHYTQKSLSLGLG</p>
276	IL2-99 fused to IgG4 Fc S228P/R409K	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTQKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTIVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGVFNFSVMHEALHNHYTQKSLSLGLG</p>
277	IL2-101 fused to IgG4 Fc S228P/R409K	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTQKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTIVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGVFNFSVMHEALHNHYTQKSLSLGLG</p>
278	IL2-102 fused to IgG4 Fc S228P/R409K	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTQKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLTIVLHQDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGVFNFSVMHEALHNHYTQKSLSLGLG</p>

279	IL2-103 fused to IgG4 Fc S228P/R409K	<p>APTSSTKTKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T E M L T F K P Y M P K K A T E L K H L Q C L E E E L K P L E E</p> <p>ALNLA P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G</p> <p>G S G G G S G G G S G G G S E S K Y G P P C P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E</p> <p>D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S</p> <p>K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F</p> <p>L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K</p>
280	IL2-104 fused to IgG4 Fc S228P/R409K	<p>APTSSTKTKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T E M L T F K P Y M P K K A T E L K H L Q C L E E E L K P L E E</p> <p>ALNLA P S K N F H L R P R D L I S N I N V S V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G</p> <p>G S G G G S G G G S G G G S E S K Y G P P C P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E</p> <p>D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S</p> <p>K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F</p> <p>L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K</p>
281	IL2-114 fused to IgG4 Fc S228P/R409K	<p>APTSSTKTKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T Q F Y M P K K A T E L K H L Q C L E E E L K P L E E</p> <p>ALNLA P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G</p> <p>G S G G G S G G G S G G G S E S K Y G P P C P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E</p> <p>D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S</p> <p>K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F</p> <p>L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K</p>
282	IL2-117 fused to IgG4 Fc S228P/R409K	<p>APTSSTKTKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T Q F Y M P K K A T E L K H L Q C L E E E L K P L E E</p> <p>ALNLA P S K N F H L R P R D L I S N I N V S V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G</p> <p>G S G G G S G G G S G G G S E S K Y G P P C P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E</p> <p>D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S</p> <p>K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F</p> <p>L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K</p>
283	IL2-108 fused to IgG4 Fc S228P/R409K	<p>APTSSTKTKTQLQLEHLLLDLQMI L N G I N N Y K N P E L T N M L T F K P Y M P K K A T E L K H L Q C L E E E L K P L E E</p> <p>ALNLA P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G</p> <p>G S G G G S G G G S G G G S E S K Y G P P C P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E</p> <p>D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L T V L H Q D W L N G K E Y K C K V S N K G L P S S I E K T I S</p> <p>K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I A V E W E S N G Q P E N N Y K T T P P V L D S D G S F F</p> <p>L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K</p>
Exemplary IL-2-Fc Fusion Proteins (IgG4 Fc S228P Mut215)		

284	IL2 C125S fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE VNLAQSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGLNGKEYCKVSNKGLPSSIEKTI KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSD I VVWESNGQPENNYKTTPPVLDSDGSF LYSRLTVDSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
285	Stabilized IL-2 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGLNGKEYCKVSNKGLPSSIEKTI KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSD I VVWESNGQPENNYKTTPPVLDSDGSF LYSRLTVDSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
286	IL2-037 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGLNGKEYCKVSNKGLPSSIEKTI KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSD I VVWESNGQPENNYKTTPPVLDSDGSF LYSRLTVDSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
287	IL2-062 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGLNGKEYCKVSNKGLPSSIEKTI KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSD I VVWESNGQPENNYKTTPPVLDSDGSF LYSRLTVDSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
288	IL2-118 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGLNGKEYCKVSNKGLPSSIEKTI KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSD I VVWESNGQPENNYKTTPPVLDSDGSF LYSRLTVDSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>

289	IL2-035 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI L NGTNNYKNPKL TRMLTFKPYMPK KAT ELKHLQCLEEEELKPLEE</p> <p>ALNLAPSKNPHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFQS IISTLTGGG</p> <p>GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ E</p> <p>DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S</p> <p>KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSF F</p> <p>LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
290	IL2-073 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI L NGINNNYKNPKL TRMLTFKPYMPK KAT ELKHLQCLEEEELKPLEE</p> <p>ALNLAPSKNPHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFQS IISTLTGGG</p> <p>GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ E</p> <p>DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S</p> <p>KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSF F</p> <p>LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
291	IL2-077 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI L NGINNNYKNPKL TRMLTFKPYMPK KAT ELKHLQCLEEEELKPLEE</p> <p>ALNLAPSKNPHLRPRDLI RNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFQS IISTLTGGG</p> <p>GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ E</p> <p>DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S</p> <p>KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSF F</p> <p>LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
292	IL2-043 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI L NGINNNYKNPKL TRMLTFKPYMPK KAT ELKHLQCLEEEELKPLEE</p> <p>ALNLAPSKNPHLRPRDLI SLINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFQS IISTLTGGG</p> <p>GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ E</p> <p>DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S</p> <p>KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSF F</p> <p>LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
293	IL2-036 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI L NGINNNYKNPKL TRMLTFKPYMPK KAT ELKHLQCLEEEELKPLEE</p> <p>ALNLAPSKNPHLRPRDLI SSINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFQS IISTLTGGG</p> <p>GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ E</p> <p>DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S</p> <p>KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSF F</p> <p>LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>

294	IL2-068 fused to IgG4 Fc S228P Mut215	<p> A P T S S T K K T Q L E H L L L D L Q M I N G I N N Y K N P K L T R M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V S V L E L K G S E T T F M C E Y A D E T A I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D M L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S R L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
295	IL2-106 fused to IgG4 Fc S228P Mut215	<p> A P T S S T K K T Q L E H L L L D L Q M I N G I N N Y K N P E L T R M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I L E L K G S E T T F M C E Y A D E T A I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D M L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S R L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
296	IL2-107 fused to IgG4 Fc S228P Mut215	<p> A P T S S T K K T Q L E H L L L D L Q M I N G I N N Y K N P E L T R M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I L E L K G S E T T F M C E Y A D E T A I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D M L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S R L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
297	IL2-119 fused to IgG4 Fc S228P Mut215	<p> A P T S S T K K T Q L E H L L L D L Q M I N G I N N Y K N P E L T R M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I L E L K G S E T T F M C E Y A D E T A I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D M L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S R L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
298	K35E/D84V mutein fused to IgG4 Fc S228P Mut215	<p> A P T S S T K K T Q L E H L L L D L Q M I N G I N N Y K N P E L T R M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R V L I S N I N V I L E L K G S E T T F M C E Y A D E T A I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D M L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S R L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>

299	IL2-115 fused to IgG4 Fc S228P Mut215	<p>APTSSSTKKTQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKFYMPKKATELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SININVL ELKGSETTFMCEYADETAT IVEFLNRWITFQS IISTLTGGG</p> <p>GGGGGGGGGGGGGGSESKYGPCCPAP EFLGGPSVFLFPKP KDTLMI SRTP ETV CVVVDVSQE</p> <p>DPEVQFNWYVDGV EHVNAKTKPREEQFNSTYRVVSVLQVLHVDWLNGKEYCKVSNKGLPSSI EKTIS</p> <p>KAKGQPREPQVYITLP SQEEEMTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSFF</p> <p>LYSRLTVDKSRWQEGNVFSCSV MHEALHNHYTQKSLSLGLG</p>
300	IL2-109 fused to IgG4 Fc S228P Mut215	<p>APTSSSTKKTQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKFYMPKKATELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SININVL ELKGSETTFMCEYADETAT IVEFLNRWITFQS IISTLTGGG</p> <p>GGGGGGGGGGGGGGSESKYGPCCPAP EFLGGPSVFLFPKP KDTLMI SRTP ETV CVVVDVSQE</p> <p>DPEVQFNWYVDGV EHVNAKTKPREEQFNSTYRVVSVLQVLHVDWLNGKEYCKVSNKGLPSSI EKTIS</p> <p>KAKGQPREPQVYITLP SQEEEMTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSFF</p> <p>LYSRLTVDKSRWQEGNVFSCSV MHEALHNHYTQKSLSLGLG</p>
301	IL2-113 fused to IgG4 Fc S228P Mut215	<p>APTSSSTKKTQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKFYMPKKATELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SININVL ELKGSETTFMCEYADETAT IVEFLNRWITFQS IISTLTGGG</p> <p>GGGGGGGGGGGGGGSESKYGPCCPAP EFLGGPSVFLFPKP KDTLMI SRTP ETV CVVVDVSQE</p> <p>DPEVQFNWYVDGV EHVNAKTKPREEQFNSTYRVVSVLQVLHVDWLNGKEYCKVSNKGLPSSI EKTIS</p> <p>KAKGQPREPQVYITLP SQEEEMTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSFF</p> <p>LYSRLTVDKSRWQEGNVFSCSV MHEALHNHYTQKSLSLGLG</p>
302	IL2-120 fused to IgG4 Fc S228P Mut215	<p>APTSSSTKKTQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKFYMPKKATELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SININVL ELKGSETTFMCEYADETAT IVEFLNRWITFQS IISTLTGGG</p> <p>GGGGGGGGGGGGGGSESKYGPCCPAP EFLGGPSVFLFPKP KDTLMI SRTP ETV CVVVDVSQE</p> <p>DPEVQFNWYVDGV EHVNAKTKPREEQFNSTYRVVSVLQVLHVDWLNGKEYCKVSNKGLPSSI EKTIS</p> <p>KAKGQPREPQVYITLP SQEEEMTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSFF</p> <p>LYSRLTVDKSRWQEGNVFSCSV MHEALHNHYTQKSLSLGLG</p>
303	R38Q/D84V mutin fused to IgG4 Fc S228P Mut215	<p>APTSSSTKKTQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKFYMPKKATELKHLQCLEEEELKPLEE</p> <p>ALNLA PSKNFHLRPRDLI SININVL ELKGSETTFMCEYADETAT IVEFLNRWITFQS IISTLTGGG</p> <p>GGGGGGGGGGGGGGSESKYGPCCPAP EFLGGPSVFLFPKP KDTLMI SRTP ETV CVVVDVSQE</p> <p>DPEVQFNWYVDGV EHVNAKTKPREEQFNSTYRVVSVLQVLHVDWLNGKEYCKVSNKGLPSSI EKTIS</p> <p>KAKGQPREPQVYITLP SQEEEMTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSFF</p> <p>LYSRLTVDKSRWQEGNVFSCSV MHEALHNHYTQKSLSLGLG</p>

304	IL2-116 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVS VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGLKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYTTLPQSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFPP LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLSLGK</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGLKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYTTLPQSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFPP LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLSLGK</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGLKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYTTLPQSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFPP LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLSLGK</p>
305	IL2-088 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGLKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYTTLPQSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFPP LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLSLGK</p>
306	IL2-097 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGLKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYTTLPQSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFPP LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLSLGK</p>
307	R38N/H16L mutein fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGLKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYTTLPQSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFPP LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLSLGK</p>
308	IL2-098 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGLKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYTTLPQSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFPP LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLSLGK</p>

309	IL2-100 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TNMLTKFPYMPK KATELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVS VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSESKYGP PCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFPP LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TEMPLTKFPYMPK KATELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSESKYGP PCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFPP LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p> <p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTKFPYMPK KATELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSESKYGP PCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFPP LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
310	IL2-090 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TEMPLTKFPYMPK KATELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSESKYGP PCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFPP LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
311	IL2-092 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTKFPYMPK KATELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSESKYGP PCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFPP LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
312	IL2-110 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TRMLTKFPYMPK KATELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSESKYGP PCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFPP LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>
313	IL2-Inactive fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKL TEMPLTKFPYMPK KATELKHLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSESKYGP PCPPCPAPEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSQ DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFPP LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG</p>

314	IL2-99 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T N M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E</p> <p>ALNLA P S K N F H L R P R D L I R N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G</p> <p>G S G G G S G G G S G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E</p> <p>D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K G L P S S I E K T I S</p> <p>K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F</p> <p>LYSRLTVDKSRWQEGNVFSCSV M H E A L H N H Y T Q K S L S L S L G K</p>
315	IL2-101 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T E M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E</p> <p>ALNLA P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G</p> <p>G S G G G S G G G S G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E</p> <p>D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K G L P S S I E K T I S</p> <p>K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F</p> <p>LYSRLTVDKSRWQEGNVFSCSV M H E A L H N H Y T Q K S L S L S L G K</p>
316	IL2-102 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T E M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E</p> <p>ALNLA P S K N F H L R P R V L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G</p> <p>G S G G G S G G G S G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E</p> <p>D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K G L P S S I E K T I S</p> <p>K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F</p> <p>LYSRLTVDKSRWQEGNVFSCSV M H E A L H N H Y T Q K S L S L S L G K</p>
317	IL2-103 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T E M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E</p> <p>ALNLA P S K N F H L R P R D L I R N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G</p> <p>G S G G G S G G G S G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E</p> <p>D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K G L P S S I E K T I S</p> <p>K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F</p> <p>LYSRLTVDKSRWQEGNVFSCSV M H E A L H N H Y T Q K S L S L S L G K</p>
318	IL2-104 fused to IgG4 Fc S228P Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T E M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E</p> <p>ALNLA P S K N F H L R P R D L I S N I N V S V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G</p> <p>G S G G G S G G G S G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E</p> <p>D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K G L P S S I E K T I S</p> <p>K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F</p> <p>LYSRLTVDKSRWQEGNVFSCSV M H E A L H N H Y T Q K S L S L S L G K</p>

319	IL2-114 fused to IgG4 Fc S228P Mut215	APTSSTKTKTQLQLENLLLDLQMI LINGINNYKNPKLTRMLTQKPYMPKKATELKHQLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSKYGP PCPPCAPPEFLGGPSVFLPPPKD TLMISRTPEVTCVVVDVSQ E DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVEWESNGQPENNYKTTPPVLDSDGSF F LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG
320	IL2-117 fused to IgG4 Fc S228P Mut215	APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTQKPYMPKKATELKHQLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVS VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSKYGP PCPPCAPPEFLGGPSVFLPPPKD TLMISRTPEVTCVVVDVSQ E DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVEWESNGQPENNYKTTPPVLDSDGSF F LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG
321	IL2-108 fused to IgG4 Fc S228P Mut215	APTSSTKTKTQLQLENLLLDLQMI LINGINNYKNPELTNMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSKYGP PCPPCAPPEFLGGPSVFLPPPKD TLMISRTPEVTCVVVDVSQ E DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVEWESNGQPENNYKTTPPVLDSDGSF F LYSRLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG
Exemplary IL-2-Fc Fusion Proteins (IgG4 Fc S228P/R409K Mut215)		
322	IL2 C125S fused to IgG4 Fc S228P/R409K Mut215	APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTQKPYMPKKATELKHQLQCLEEEELKPLEE VLNLAQSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSKYGP PCPPCAPPEFLGGPSVFLPPPKD TLMISRTPEVTCVVVDVSQ E DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVEWESNGQPENNYKTTPPVLDSDGSF F LYSKLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG
323	Stabilized IL-2 fused to IgG4 Fc S228P/R409K Mut215	APTSSTKTKTQLQLEHLLLDLQMI LINGINNYKNPKLTRMLTQKPYMPKKATELKHQLQCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSGGSKYGP PCPPCAPPEFLGGPSVFLPPPKD TLMISRTPEVTCVVVDVSQ E DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVEWESNGQPENNYKTTPPVLDSDGSF F LYSKLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG

324	IL2-037 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEDLLDLQMI LINGINNKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSD I VVWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
325	IL2-062 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEDLLDLQMI LINGINNKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSD I VVWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
326	IL2-118 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEDLLDLQMI LINGINNKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSD I VVWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
327	IL2-035 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEDLLDLQMI LINGINNKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSD I VVWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
328	IL2-073 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEDLLDLQMI LINGINNKNPKLTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSD I VVWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>

329	IL2-077 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYPKPTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI RNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCAPPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
330	IL2-043 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYPKPTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SLINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCAPPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
331	IL2-036 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYPKPTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SSINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCAPPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
332	IL2-068 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYPKPTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVS VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCAPPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
333	IL2-106 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYPKPTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCAPPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVEWESNGQPENNYKTTTPVLDSDGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>

334	IL2-107 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
335	IL2-119 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
336	K35E/D84V mutein fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
337	IL2-115 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPELTRMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
338	IL2-109 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYKNPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>

339	IL2-113 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYPKPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
340	IL2-120 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYPKPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
341	R38Q/D84V mu2in fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYPKPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
342	IL2-116 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYPKPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>
343	IL2-088 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNYPKPKLTQMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLA PSKNFHLRPRDLI SNINVI VLELKGSETTFMCEYADETAT IVEFLNRWITFSQS IISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTI S KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTPPVLDSDGSFF LYSKLTVDKSRWQEAGNVSFCSVMHEALHNHYTQKSLSLGLG </p>

344	IL2-097 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG </p>
345	R38N/H16L mutcin fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG </p>
346	IL2-098 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG </p>
347	IL2-100 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG </p>
348	IL2-090 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI LINGINNKNPKLTNMLTFKPYMPKKATELKHLCLEEEELKPLEE ALNLAPSKNPHLRPRDLISININIVLELKGSETTFMCEYADETAT IVEFLNRWITFSQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPEFLGGPSVFLFPKPKDTLMI SRTPEVTCVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIIS KAKGQPREPQVYITLPPSQEEMTKNQVSLTCLVKGFYPSDI VVWESNGQPENNYKTTTPVLDSDSGSFF LYSKLTVDKSRWQEGNVFSCSVMEALHNHYTQKSLSLGLG </p>

349	IL2-092 fused to IgG4 Fc S228P/R409K Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T K F Y M P K K A T E L K H L Q C L E E E L K P L E E</p> <p>ALNLA P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G</p> <p>G S G G G S G G G S G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V V D V S Q E</p> <p>D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K G L P S S I E K T I S</p> <p>K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F</p> <p>L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K</p>
350	IL2-110 fused to IgG4 Fc S228P/R409K Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T K F Y M P K K A T E L K H L Q C L E E E L K P L E E</p> <p>ALNLA P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G</p> <p>G S G G G S G G G S G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V V D V S Q E</p> <p>D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K G L P S S I E K T I S</p> <p>K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F</p> <p>L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K</p>
351	IL2-Inactive fused to IgG4 Fc S228P/R409K Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T A F A M P K K A T E L K H L Q C L E E E L K P L E E</p> <p>ALNGA P S K N F H L R P R D L I S D I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G</p> <p>G S G G G S G G G S G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V V D V S Q E</p> <p>D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K G L P S S I E K T I S</p> <p>K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F</p> <p>L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K</p>
352	IL2-99 fused to IgG4 Fc S228P/R409K Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T N M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E</p> <p>ALNLA P S K N F H L R P R D L I R N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G</p> <p>G S G G G S G G G S G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V V D V S Q E</p> <p>D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K G L P S S I E K T I S</p> <p>K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F</p> <p>L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K</p>
353	IL2-101 fused to IgG4 Fc S228P/R409K Mut215	<p>APTSSTKTKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T E M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E</p> <p>ALNLA P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G</p> <p>G S G G G S G G G S G G S E S K Y G P P C P P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V V D V S Q E</p> <p>D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K G L P S S I E K T I S</p> <p>K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F</p> <p>L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K</p>

354	IL2-102 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T E M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
355	IL2-103 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T E M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I R N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
356	IL2-104 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T E M L T F K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V S V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
357	IL2-114 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T Q K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V I V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>
358	IL2-117 fused to IgG4 Fc S228P/R409K Mut215	<p> APTSSSTKKTQLQLEHLLLDLQMI L N G I N N Y K N P K L T R M L T Q K F Y M P K K A T E L K H L Q C L E E E L K P L E E A L N L A P S K N F H L R P R D L I S N I N V S V L E L K G S E T T F M C E Y A D E T A T I V E F L N R W I T F S Q S I I S T L T G G G G S G G G S G G G S G G S E S K Y G P P C P P C P A P E F L G G P S V F L P P K P K D T L M I S R T P E V T C V V D V S Q E D P E V Q F N W Y V D G V E V H N A K T K P R E E Q F N S T Y R V V S V L Q V L H V D W L N G K E Y K C K V S N K G L P S S I E K T I S K A K G Q P R E P Q V Y T L P P S Q E E M T K N Q V S L T C L V K G F Y P S D I V V E W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D K S R W Q E G N V F S C S V M H E A L H N H Y T Q K S L S L S L G K </p>

359	IL2-108 fused to IgG4 Fc S228P/R409K Mut215	APTSSTKTKQLQLENLLDLQMI LINGINNYKNPELTNMLTFKPYMPKKATELKHQLQCLEEEELKPLEE ALNLAQSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITTFQSIIISTLTGGG GSGGGSGGGSGGGSESKYGPCCPPCPAPFELGGPSVFLFPKPKDITLMISRTPEVT CVVVDVSQE DPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVSVLQVLHVDWLNGKEYCKVSNKGLPSSIEKTIS KAKGQPREPQVYTLPPSQEEMTKNQVSLTCLVKGFYPSD I VVEWESNGQPENNYKTTPPVLDSDGSFF LYSKLTVDKSRWQEAGVFNFSVMHEALHNHYTQKSLSLGLG
360	Wild type (WT) Human IL-2 (Uniprot P60568); signal peptide underlined	MYRMQLLSCTIALSLALVTNSAPTSSSTKTKQLQLEHLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKK KATELKHQLQCLEEEELKPLEEVNLQAQSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVE FLNRWITTFQCSIIISTLT
1031	Wild type (WT) Human IL-2 (Uniprot P60568); signal peptide not included	APTSSTKTKQLQLEHLLDLQMI LINGINNYKNPKLTRMLTFKPYMPKKATELKHQLQCLEEEELKPLEE VLNLAQSKNPHLRPRDLISININVI VLELKGSETTFMCEYADETAT IVEFLNRWITTFQCSIIISTLT

TABLE 10. SEQUENCE LISTING (NUCLEOTIDE)

SEQ ID NO	Description	Substitutions	Sequence (nucleotide)
Exemplary IL-2 Variants (Muteins)			
361	IL2 C125S	C125S	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGGAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACCTTGAGGAAGTA TTGAATCTTGCTCAGTCAAAAACCTTTCATTTGGGCCACGAGATCTGATAAGCAACATCAACGTCATC GTCCTGGAAC TGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGACGACGAAACTGCGACAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACT
362	Stabilized IL-2	V69A/Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGGAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACCTTGAGGAAGCC TTGAATCTTGCTCCGTCCTCAAAAACTTTCATTTGGGCCACGAGATCTGATAAGCAACATCAACGTCATC GTCCTGGAAC TGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGACGACGAAACTGCGACAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACT

363	IL2-037	H16D/V69A/Q74P/ C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGGATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATACAAAAATCCTAACTTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
364	IL2-062	H16N/V69A/Q74P/ C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATACAAAAATCCTAACTTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
365	IL2-118	H16L/V69A/Q74P/ C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCTTGTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATACAAAAATCCTAACTTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
366	IL2-035	128T/V69A/Q74P/ C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCACTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATACAAAAATCCTAACTTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
367	IL2-073	V69A/Q74P/D84V/ C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATACAAAAATCCTAACTTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGTTCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT

368	IL2-077	V69A/Q74P/S87R/ C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTCATTTGCGGCCACGAGATCTGATACGTAAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
369	IL2-043	V69A/Q74P/N88L/ C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTCATTTGCGGCCACGAGATCTGATAAGCCTGATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
370	IL2-036	V69A/Q74P/N88S/ C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTCATTTGCGGCCACGAGATCTGATAAGCAGCATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
371	IL2-068	V69A/Q74P/I92S/ C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
372	IL2-106	K35E/V69A/Q74P/ C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTACAAAAATCCTGAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT

373	IL2-107	K35E/H16N/V69A/ Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATACAAAAATCCTGAATCTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
374	IL2-119	K35E/H16L/V69A/ Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCTTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATACAAAAATCCTGAATCTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
375	K35E/D84 V mutem	K35E/D84V/V69A/ Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATACAAAAATCCTGAATCTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
376	IL2-115	K35E/I92S/V69A/ Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATACAAAAATCCTGAATCTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
377	IL2-109	R38Q/V69A/Q74P/ C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATACAAAAATCCTGAATCTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT

378	IL2-113	R38Q/H16N/V69A/ Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
379	IL2-120	R38Q/H16L/V69A/ Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCTTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
380	R38Q/D84 V mutem	R38Q/D84V/V69A/ Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
381	IL2-116	R38Q/I92S/Q74P/ C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
382	IL2-088	R38N/V69A/Q74P/ C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT

383	IL2-097	R38N/H16N/V69A/ Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTAACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCTCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
384	R38N/H16 L mutein	R38N/H16L/V69A/ Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGTTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTAACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCTCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
385	IL2-098	R38N/D84V/V69A/ Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTAACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCTCAAAAACTTTTCAATTTGCGGCCACGAGTCTTGTGATAAGCAACATCAACGTTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
386	IL2-100	R38N/I92S/Q74P/ C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTAACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCTCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTTGAGC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
387	IL2-090	R38E/V69A/Q74P/ C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTAACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCTCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT

388	IL2-092	F42K/V69A/Q74P/ C125S	<p>GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGGAAGATTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT</p>
389	IL2-110	F42Q/V69A/Q74P/ C125S	<p>GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGGAAGATTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT</p>
390	IL2- Inactive	F42A/Y45A/L72G/ N88D/V69A/Q74P/ C125S	<p>GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGGAAGATTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATGGTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCGATATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT</p>
391	IL2-99	R38N/S87R/V69A/ Q74P/C125S	<p>GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGGAACTCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT</p>
392	IL2-101	R38E/H16N/V69A/ Q74P/C125S	<p>GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACTTCTTCTCGACCTTCAGATG ATTTTGAAACGGGAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT</p>

393	IL2-102	R38E/D84V/V69A/ Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAATCAATAATTAACAAAAATCCTAAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGTCTTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
394	IL2-103	R38E/S87R/V69A/ Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAATCAATAATTAACAAAAATCCTAAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTGATAAGGAACTCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
395	IL2-104	R38E/I92S/V69A/ Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAATCAATAATTAACAAAAATCCTAAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTTGATAAGCAACATCAACGTGAGC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
396	IL2-114	F42Q/H16N/V69A/ Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAATCAATAATTAACAAAAATCCTAAACTTACTAGAACTCACGCGAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
397	IL2-117	F42Q/I92S/V69A/ Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAATCAATAATTAACAAAAATCCTAAACTTACTAGAACTCACGCGAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTTCAATTTGCGGCCACGAGATCTTGATAAGCAACATCAACGTGAGC GTCCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT

398	IL2-108	K35E/R38N/H16N/ V69A/Q74P/C125S	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATACAAAAATCCTGAATCTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
1010	IL2-124	T3A/H16N/ V69A/Q74P/C125S	GCCCTGCATCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATACAAAAATCCTAAACTTACTAGAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
1011	IL2-127	T3A/H16L/ V69A/Q74P/I92S/ C125S	GCCCTGCATCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATACAAAAATCCTAAACTTACTAGAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
1012	IL2-130	T3A/V69A/Q74P/ C125S	GCCCTGCATCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATACAAAAATCCTAAACTTACTAGAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACT
Exemplary Fc Regions			
399	IgG1 Fc		GATAAACTCATACGTGCCCCACCTTGCCCCGACCGAGAGCTGCTTGGGGTCTTCCGTATTTCTTGT CCGCCGAAGCCGAAGGACACGCTTATGATTAGCAGGACTCCCGAAGTGACGTGCGTCGTGACGCTG TCGCATGAGGACCCGGAGGTCAAGTCAACTGGTATGTCGATGGCGTAGAAGTACACAATGCAAGACT AAACCCCGGAAGAACAGTACAAATTCGACATACAGAGTAGTGAGCGCTTGTGCTGACACAGGAC TGGCTCAACGGAAGGAGTATAAGTTAAAGTATCGAATAAGGCACTTCCCGCACCTATCGAGAAAAACG ATCTCAAGGCTAAGGTGTCAGCCAAAGAAACCCCAAGTCTACACTCTGCCCCCTAGCCGCGACGAGCTT ACGAAAAACCCAGGTGTCGCTCACTTGTGTTGGTGAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGG GAAATCCAAACGGGACGAGAGAACAAATTAAGACGACGCGCAACGATGCTGGATGGAGCTTT TTCTTGTACTCAAAGTTGACCGTGGATAAAGCCGTTGGCAGCAGGTAATGTGTTCATGCTCGGTA ATGCACGAGGCCCTCCATAACCAATTATACGCAGAAAAAGCCCTTTCGCTCTCACCCGGGAAA

400	IgG1 Fc N297G	N297G	<p>GATAAACTCATACGTGCCACCCCTGCCCCGACCCGAGAGCTGCTTGGGGTCCCTCCGTAATCTTTGTTT CCGCCGAAGCCGAAGGACACGCTTATGATTAGAGGACTCCCGAAGTGAACGTGCGTCGTAGTGGACGTG TCGCATGAGGACCCGGAGGTCAAGTTCAACTGGTATGTCGATGGCGTAGAAGTACACAATGCAAAGACT AAACCCCGCGAAGAACAGTACGGTTCGACATACAGAGTAGTGAGCGCTTGTGACTGTGTCACCCAGGAC TGGCTCAACCGGAAAGGAGTATAAGTGTAAAGTATCGAATAAGGCATTCGCCACCTATCGAGAAAACG ATCTCAAGGCTAAGGGTCAGCCAAAGAACCCCAAGTCTACACTCTGCCCTCCGCGACGAGCTT ACGAAAAAACGAGGTGTCGCTCACTTTGTTGGTGAAGGTTTCTATCCGAGCGATATTTCCGGTAGAGTGG GAATCCAAACGGGCAGCCAGAGAACAAATACAAGACGACCGCACCGAGTCTGGATTCGGATGGGAGCTTT TTCTTGTACTCAAAGTTGACCGTGGATAAAAGCCGGTGGCAGCAGGTAATGTGTTTTCATGCTCGGTA ATGCACGAGGCCCTCCATAACCAATATACGCAGAAAAGCCTTTTCGCTCTCACCCGGGAAA</p>
401	IgG1 Fc LALAPG	L234A/L235A/P32 9G	<p>GATAAACTCATACGTGCCACCCCTGCCCCGACCCGAGGACGAGGGGTCTTCCGTAATCTTTGTTT CCGCCGAAGCCGAAGGACACGCTTATGATTAGCAGGACTCCCGAAGTGAACGTGCGTCGTAGTGGACGTG TCGCATGAGGACCCGGAGGTCAAGTTCAACTGGTATGTCGATGGCGTAGAAGTACACAATGCAAAGACT AAACCCCGCGAAGAACAGTACAAATTCGACATACAGAGTAGTGAGCGTCTTGACTGTGTCACCCAGGAC TGGCTCAACCGGAAAGGAGTATAAGTGTAAAGTATCGAATAAGGCATTTGGTGCACCTATCGAGAAAACG ATCTCAAGGCTAAGGGTCAGCCAAAGAACCCCAAGTCTACACTCTGCCCTCCGCGACGAGCTT ACGAAAAAACGAGGTGTCGCTCACTTTGTTGGTGAAGGTTTCTATCCGAGCGATATTTCCGGTAGAGTGG GAATCCAAACGGGCAGCCAGAGAACAAATACAAGACGACCGCACCGAGTCTGGATTCGGATGGGAGCTTT TTCTTGTACTCAAAGTTGACCGTGGATAAAAGCCGGTGGCAGCAGGTAATGTGTTTTCATGCTCGGTA ATGCACGAGGCCCTCCATAACCAATATACGCAGAAAAGCCTTTTCGCTCTCACCCGGGAAA</p>
402	IgG1 Fc N297G Mut215	N297G/T307Q/Q3 11V/A378V	<p>GATAAACTCATACGTGCCACCCCTGCCCCGACCCGAGGACTGCTTGGGGTCCCTCCGTAATCTTTGTTT CCGCCGAAGCCGAAGGACACGCTTATGATTAGCAGGACTCCCGAAGTGAACGTGCGTCGTAGTGGACGTG TCGCATGAGGACCCGGAGGTCAAGTTCAACTGGTATGTCGATGGCGTAGAAGTACACAATGCAAAGACT AAACCCCGCGAAGAACAGTACGGTTCGACATACAGAGTAGTGAGCGCTTTCGAGGTGTCACCGTTGAC TGGCTCAACCGGAAAGGAGTATAAGTGTAAAGTATCGAATAAGGCATTCGCCACCTATCGAGAAAACG ATCTCAAGGCTAAGGGTCAGCCAAAGAACCCCAAGTCTACACTCTGCCCTCCGCGACGAGCTT ACGAAAAAACGAGGTGTCGCTCACTTTGTTGGTGAAGGTTTCTATCCGAGCGATATTTGGGTAGAGTGG GAATCCAAACGGGCAGCCAGAGAACAAATACAAGACGACCGCACCGAGTCTGGATTCGGATGGGAGCTTT TTCTTGTACTCAAAGTTGACCGTGGATAAAAGCCGGTGGCAGCAGGTAATGTGTTTTCATGCTCGGTA ATGCACGAGGCCCTCCATAACCAATATACGCAGAAAAGCCTTTTCGCTCTCACCCGGGAAA</p>

403	IgG1 Fc LALAPG Mut215	L234A/L235A/P32 9G/T307Q/Q311V/ A378V	GATAAACTCATACGTGCCACCCCTGCCCCGACCCGAGGAGCAGCAGGTGGTCCCTCCGTAATCTTGTGTT CCGCCGAAGCCCGAAGGACACGCTTATGATATTAGAGGACTCCCGAAGTACAGTGCCTGCTAGTTCGACGTG TCGCATGAGGACCCGGAGGTCAAGTTCAACTGGTATGTCGATGGCGTAGAAGTACACAATGCAAAGACT AAACCCCGCGAAGAACAGTACAATTCGACATACAGAGTAGTGAGCGTCTTGCGAGGTGTCACGTTGAC TGGCTCAACCGGAAAGGAGTATAAGTGTAAAGTATCGAATAAGGCATCTGGTGACCTATCGAGAAAACG ATCTCAAGGCTAAGGGTCAGCCAAAGAACCCCAAGTCTACACTCTGCCCCCTAGCCGACGAGCTT ACGAAAAACCCAGGTGTCGCTCACTTTGTTGGTGAAGGTTTCTATCCGAGCGATATTTGGTAGAGTGG GAATCCAAACGGGACGACAGAGAACAAATACAAGACGACGCCACCGAGTCTGGATTCGGATGGGAGCTTT TTCTTGTAATCAAAAGTTGACCGTGGATAAAAGCCGCGGAGGAGTAAATGTGTTTCATGCTCGGTA ATGCACGAGGCCCTCCATAACCAATATACGAGAAAAGCCCTTTCGCTCTCACCCGGGAAA
404	IgG4 Fc S228P	S228P	GAAAGTAAGTATGGCCCTCTTGGCCCTCCGTGCCCCCTGACCTGAGTTCTCTCGGCGGTCCCTTCAGTGT TTGTGTTCCACCCCAACCTAAAGACACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGT GATGCTCTACAGGAAGATCCGGAGGTCAATTTAATTGGTACGTGATGGTGTGAAAGTGCATAATGCG AAGACTAAGCCCGAGAGAGAACAGTTCAATTCACCTTATCGCGTGGTTTCAGTCCCTTACAGTCTTGAC CAAGATTGGCTTAAACGGAAGGAATATAAGTGCAAGTAAAGTAAAGGGCTTCCATCAAGCATTGAA AAAACCATAAAGTAAAGCAAAAGGACAAACCGAGGGAGCCCCAAGTCTACACGCTTCCCTCTCAGGAG GAGATGACCAAAACCCAGGTAAAGTTGACGTGTTTGGTAAAGGGGTTTATCCCTCAGATATTGCTGTC GAAATGGGAGTCTAAATGGTCAGCCTGAGAACAAATTAAGAGACTACGCCACCCGTTCTGGATTCAGACGGA TCTTTCTTCTCTACAGCAGATTGACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGCTTCAGTTGT TCTGTAATGCAGAACCCCTCCATAATCACTACACGAGAAAATCTCTGAGCTTGTCTCTTGGGAAA
405	IgG4 Fc S228P/R40 9K	S228P/R409K	GAAAGTAAGTATGGCCCTCTTGGCCCTCCGTGCCCCCTGACCTGAGTTCTCTCGGCGGTCCCTTCAGTGT TTGTGTTCCACCCCAACCTAAAGACACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGT GATGCTCTACAGGAAGATCCGGAGGTCAATTTAATTGGTACGTGATGGTGTGAAAGTGCATAATGCG AAGACTAAGCCCGAGAGAGAACAGTTCAATTCACCTTATCGCGTGGTTTCAGTCCCTTACAGTCTTGAC CAAGATTGGCTTAAACGGAAGGAATATAAGTGCAAGTAAAGTAAAGGGCTTCCATCAAGCATTGAA AAAACCATAAAGTAAAGCAAAAGGACAAACCGAGGGAGCCCAAGTCTACACGCTTCCCTCTCAGGAG GAGATGACCAAAACCCAGGTAAAGTTGACGTGTTTGGTAAAGGGGTTTATCCCTCAGATATTGCTGTC GAATGGGAGTCTAATGGTCAGCCTGAGAACAAATTAAGAGACTACGCCACCCGTTCTGGATTCAGACGGA TCTTTCTTCTCTACAGCAAAATGACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGCTTCAGTTGT TCTGTAATGCAGAACCCCTCCATAATCACTACACGAGAAAATCTCTGAGCTTGTCTCTTGGGAAA

406	IgG4 Fc S228P Mut215	S228P/T307Q/Q31 1V/A378V	GAAAGTAAGTATGGCCCTCCTTGCCCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCCCTTCAGTGTCTT TTGTTTCCACCCAAACCTAAAGACACCTTATGATCTCTCGAACACCTGAAGTAACCTGTGTAGTTGTT GATGTCTCAGAGGAATCCGGAGGTTCAATTTAAATTGGTACGTGCAATGGTGTGAAGTGCATAATGCG AAGACTAAGCCGAGAGAGAACAGTTCAATTCACCTTATCGCGTGGTTTCAGTCCCTTCAGGTCTTGCAC GTGGATTGGCTTAAACGGAAGGAATATAAGTGCAAGTAAATAAAGGGCTTCCATCAAGCATTTGAA AAAACCATAAAGTAAAGCAAAAGGCAACCGAGGGAGCCCAAGTACACGCTTCCCTCTCTCAGGAG GAGATGACCAAAACCCAGGTAAAGTTTGACGTGTTTGGTAAAGGGTTTATCCCTCAGATATTGTTGTC GAATGGGAGTCTAATGGTCAGCTGAGAACAAATTAAGAGCTACGCCACCCGTTCTGGATTTCAGACGGA TCTTTCTCTCTACAGCAGATTGACGGTAGACAAAGCCGCTGGCAAGAGGGCAATGCTCTCAGTTGT TCTGTAATGCA CGAAGCCCTCCATAATCACTACACGAGAAATCTCTGAGCTTGTCTCTTGGGAAA
407	IgG4 Fc S228P/R40 9K Mut215	S228P/R409K/T30 7Q/Q311V/A378V	GAAAGTAAGTATGGCCCTCCTTGCCCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCCCTTCAGTGTCTT TTGTTTCCACCCAAACCTAAAGACACCTTATGATCTCTCGAACACCTGAAGTAACCTGTGTAGTTGTT GATGTCTCAGAGGAATCCGGAGGTTCAATTTAAATTGGTACGTGCAATGGTGTGAAGTGCATAATGCG AAGACTAAGCCGAGAGAGAACAGTTCAATTCACCTTATCGCGTGGTTTCAGTCCCTTCAGGTCTTGCAC GTGGATTGGCTTAAACGGAAGGAATATAAGTGCAAGTAAATAAAGGGCTTCCATCAAGCATTTGAA AAAACCATAAAGTAAAGCAAAAGGCAACCGAGGGAGCCCAAGTACACGCTTCCCTCTCTCAGGAG GAGATGACCAAAACCCAGGTAAAGTTTGACGTGTTTGGTAAAGGGTTTATCCCTCAGATATTGTTGTC GAAATGGGAGTCTAATGGTCAGCTGAGAACAAATTAAGAGCTACGCCACCCGTTCTGGATTTCAGTGT TCTTTCTCTCTACAGCAAAATTCAGCGTAGACAAAGCCGCTGGCAAGAGGGCAATGCTCTCAGTTGT TCTGTAATGCA CGAAGCCCTCCATAATCACTACACGAGAAATCTCTGAGCTTGTCTCTTGGGAAA
1013	IgG1 Fc N297G m3 allotype	N297G	GATAAAACTCATACGTGCCACCTGCCCGCACCGAGCTGCTTGGGGTCCCTCCGTAATCTTGTCTT CCGCCGAAGCCGAAGGACACGCTTATGATTAGCAGGACTCCCGAAGTGAACGTGCGTCTGTGGACGTG TCGCATGAGGACCCGGAGGTCAAGTTCAACTGGTATGTCGATGGCGTAGAAGTACACAATGCAAAGACT AAACCCCGGGAAGAACAGTACGGTTTCGACATACAGAGTAGTGAGCGCTTGTACTGTGTGTCACCCAGGAC TGGCTCAACGGAAAGGAGTATAAGTGTAAAGTATCGAAATAAGGCACTTCCCGCACCTATCGAGAAAACG ATCTCAAAGGCTAAGGGTCAGCCAAAGAACCCCAAGTCTACA CTGTGCCCCCTAGCCCGGAAGAGATG ACGAAAAACCCAGGTGTCGTCACTTGTGTTGGTGAAGGGTTTCTATCCGAGCGATATTCCGGTAGAGTGG GAATCCAAACCGGCACGAGAGAACAAATTAAGAGCAAGCCACCGCTGCTGGAATTCGGATGGGAGCTTT TCTTTGTACTCAAAAGTTGACCGTGGATAAAAGCCGCTGGCAGCAGGGTAAATGTGTTTTCATGCTCGGTA ATGCACGAGGCCCTCCATAACCAATTAACGCAAGAAAAGCCCTTTCGCTCTCACCCGGGAAA
Exemplary Linkers			
408	(G4S)4 linker (SEQ ID NO: 48)		GGTGGTGGAGGATCGGGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCC

409	Linker v1		GCGGGCTCAGGCGGCTCAGGCGGAAGCGGGGTCTCAGTGCCTTCAACCCCTCCCACCAATTCAAGC TCCACCCCAACGACACCATCACCGTCAGCCTCTGGAAGC
410	Linker v2		GCAGGAAGTGGCGGATCCGGCGGTCTGGTGGTTCTCCTGTGCCCTTCTACTCTCCAACTCCCAGTCCG AGTACCCCAACCCACTCCGTCACTTCCGGTGGTAGCGGTAATTCTAGTGGCAGTGGCGGATCA
411	Linker v3		GCAGGCTCTGGGAATTCAATCCGGCTCTGGTGGAAAGTGGCGGGTCAAGTAATTCAAGCGGGTCTGGCGGT AGCCCTGTGCCATCCACACCGCCAACCTCCATCTCCCTCTACTCTCTCAACGCCAAGCCCCCTCAGCATCC GGATCT
412	Linker v4		GCGGAAGCGGGGCTAAAGAGGCGAGCCGCTAAGGAAGCAGCCGCTAAGGAAGCGGCAGCAAGGCTGGT AGC
413	Linker v5		GGACCAACCCCAATCCCCCGGCCAGTAGCTCCACACAGGCTCATCCACCCCAACGAACCCCCCGGCA GGTTCA
414	Linker v6		GCTGGGTCACTGTGTGGCAACGGTGGTAACAACGGTGGTAATCCTCTCTCCCCCGACTACCAAGACT AGCAGCGCCCCCGGTACGACCCTACGGCGTCCGCAAGGTCA
415	Linker v7		GGCGGGGTAGTGGCGGAGGGGATCTGCCGGCGGTGGATCAGCGGGTGGCGGCTCTGCGGGAAGC
Exemplary IL-2-Fc Fusion Proteins (IgG1 Fc N297G)			
416	IL2 C125S fused to IgG1 Fc N297G		GCCCTACGTCTCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCTAAACTTACTAGAAATGCTCAGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGTA TTGAATCTTGTCTAGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACGTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCCGCAACCGGAGTGTCTTGGGGTCTTCCGTATCTTGTTCGCGCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCCGAAGTGACGTGCGTGTAGTGGACGTGCGCATGAGGACCCGGAGGTCAAG TTCAA CTGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACTAAACCCCGCGAAGAACAGTACGGT TCGACATACAGAGTAGTGCGTCTTGACTGTGTGCACCCAGGACTGGCTCAACGGAAGGAGTATAAG TGTAAGATATCGAATAAGGCATCTCCGCACCTATCGAGAAAACGATCTCAAGGCTAAGGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCCAGGTGTCGTCCTACT TGTTTGGTGAAGGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGGAATCCAAACGGGAGCCAGAGAAC AATTACAAGCAGCGCACCGATGCTGGATTTCGGATGGGAGCTTTTCTGTACTCAAAGTTGACCGTG GATAAAAGCCGTGGCAGCAGGTAATGTGTTTTCATGTCGGTAATGACAGGCGCTCCCATTAACCAT TATACGCAGAAAAGCCTTTTCGCTCTCAACCCGGGAAA

417	Stabilized IL-2 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAATCTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGCGAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTCGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTCTCCGCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGCTAGTGACGCTGATGAGGACCGGAGGTCGAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACCTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTGTGACTGTGCTGCACCGAGCTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAACTCAAACGCGCAGCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGCTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
418	IL2-037 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGGATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAATCTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGCGAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTCGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTCTCCGCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGCTAGTGGAAGTGTGCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACCTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTGTGACTGTGCTGCACCGAGGATGGCTCAACGGAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAACTCAAACGCGGACGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGCTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

419	IL2-062 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACAGACGCTTACTGCTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACTACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTGACGCTGATGAGGACCGGAGGTCGAGTCAAG TTCAACTGGTATGTGATGGCTAGAAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTGTGACTGTGCTGCACAGGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
420	IL2-118 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCTATCTACAGCAGCTTGAATGCTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACTGCTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGCTGAGTGGACGCTGCTGCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTGTGACTGTGCTGCACAGGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

421	IL2-035 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAACCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGCGAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTGACGTTGCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGCTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAACTCAAACGGGCGAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
422	IL2-073 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAACCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGTTCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGAAGAACTGCGACAACTCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTGACGTTTCTTGTTCGCGGAAAGCCGAGGTCAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGTCGACCAAGGAGTGGCTCAACGGAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAACTCAAACGGGCGAGGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

423	IL2-077 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATACGTAAACATCAACGTTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGCGAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTGACGTTGCGCATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACCTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGCTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAACTCAAACGGGCGAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
424	IL2-043 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCCTGATCAACGTTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAACTGCGACAACTCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGCTGAGTGGACGTTTCTTGTTCGCGGAAAGGAGTATAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACCTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGGATGGCTCAACGGAAGGAGTATAAG TGTAAGTATCGAATAAGGCACTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTTGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAACTCAAACGGGCGAGGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

425	IL2-036 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAGCATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGCTGGCTCAACCGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCGGACGAGCTTACGAAAAACAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCGGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
426	IL2-068 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTCAATTTGCGGCCACGAGATCTGATAAGCAACACTCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGGAAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAAGGAGTATAAG TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGGACTGGCTCAACCGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCGGACGAGCTTACGAAAAACAGGTTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCGGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

427	IL2-106 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAATCAATAATTACAAAAATCCTGAATCTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGCTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACTACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGCTAGTGACGCTGATGAGGACCGGAGGTCGAGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGACGACAGAAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
428	IL2-107 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAATCAATAATTACAAAAATCCTGAATCTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACTGCCCCACC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGCTAGTGGAAGTGGACGCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

429	IL2-119 fused to IgG1 Fc N297G	<p>GCCCCACGTCTCTCTCAACTAAAAAGACGCAACTTCAGCTTGAGCTGCTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAAATTACAAAACTCTGAACCTTACTAGAAATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATCTTTGGAGGAGGAACCTTAAACCACTTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTCATTTTGGGCCACGAGATCTGATAAGCAACATCAACACGTGATC GTCCTGGAACCTGAAAGGAACGAAACGACAGCTTTATGTGCGAATATGCAGACGAAACTCGCAACAATCGTT GAAATTTCTCAATCGATGGATCACTTTTGTAGCCAACTTATCATCAGCACTGTGTGCTGGTGGAGGATCG GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATATAAACTCATACGTGCCCCACC TGCCCGCACCGGAGCTGCTTTGGGGTCCCTCCGTATCTTGTCTTCCGCGAAGCCGGAAGGACACGCTT ATGATTAGCAGGACTCCGGAAGTGACGTGCGTCTGTGAGACGTGTCGATGAGGACCCGCGAGGTCAAG TTCAACTGTGTAATGTCATGGCGTAGAAGTACAACAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTAGCGCTCTTGACTGTGTGCTGCAACGAGGACTGGCTCAAACGGAAGGAGTATAAG TGTAAGTATCGAATAAAGCACTTCCCGCACCTATCGAGAAACAGATCTCAAGGCTTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTAGCCGACGAGCTTACGAAAAACCCAGGTGTGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTGAAGTGGAAATCAACCGGCAGCCAGAGAAC AATTACAAGACGACGCCACAGTGTGGAATTCGATGCGAGCTTTTCTTGTACTCAAAAGTTGACCCGTG GATAAAAGCCGGTGGCAGCAGGGTAATGTGTTTTTCATGCTCGGTAAATGCACGAGGCCCTCCATAACCAT TATACGAGAAAGCCCTTTCGCTCTCAACCCGGGAAA</p>
430	K35E/D84V mutant fused to IgG1 Fc N297G	<p>GCCCCACGTCTCTCTCAACTAAAAAGACGCAACTTCAGCTTGAGCACTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAAATTACAAAACTCTGAACCTTACTAGAAATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATCTTTGGAGGAGGAACCTTAAACCACTTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTCATTTTGGGCCACGAGTGTGATAAGCAACATCAACACGTGATC GTCCTGGAACCTGAAAGGAACGAAACGACAGCTTTATGTGCGAATATGCAGACGAAACTCGCAACAATCGTT GAAATTTCTCAATCGATGGATCACTTTTGTAGCCAACTTATCATCAGCACTGTGTGCTGGTGGAGGATCG GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATATAAACTCATACGTGCCCCACC TGCCCGCACCGGAGCTGCTTTGGGGTCCCTCCGTATCTTGTCTTCCGCGAAGCCGGAAGGACACGCTT ATGATTAGCAGGACTCCGGAAGTGACGTGCGTCTGTGAGACGTGTCGATGAGGACCCGCGAGGTCAAG TTCAACTGGTATGTGATGGCGTAGAAGTACAACAATGCAAAAGACTAAACCCCGCAAGAACAGTACCGT TCGACATACAGAGTAGTAGCGCTCTTGACTGTGTGCTGCAACGAGGACTGGCTCAAACGGAAGGAGTATAAG TGTAAGTATCGAATAAAGCACTTCCCGCACCTATCGAGAAACAGATCTCAAGGCTTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTAGCCGACGAGCTTACGAAAAACCCAGGTGTGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTGAAGTGGGAATCAACCGGCAGCCAGAGAAC AATTACAAGACGACGCCACAGTGTGGAATTCGATGCGAGCTTTTCTTGTACTCAAAAGTTGACCCGTG GATAAAAGCCGGTGGCAGCAGGGTAATGTGTTTTTCATGCTCGGTAAATGCACGAGGCCCTCCATAACCAT TATACGAGAAAGCCCTTTCGCTCTCAACCCGGGAAA</p>

431	IL2-115 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTGACGTTGCGCATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACCTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGACTGGCTCAACCGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCGGACGAGCTTACGAAAAACCGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
432	IL2-109 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTGGAAGTGTGGAAGTGTGCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACCTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGGACTGGCTCAACCGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCGGACGAGCTTACGAAAAACCGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACCGAGTCTGGATTTCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

433	IL2-113 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACAGACGCTTACTGCTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACTACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTGACGCTGATGAGGACCGGAGGTCGAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACCTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTGTGACTGTGCTGCACCGAGCTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
434	IL2-120 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACTGCTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGCTGAGTGGACGCTGATGAGGACCGGAGGTCGAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACCTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTGTGACTGTGCTGCACCGAGGATGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

435	R38Q/D84V mutein fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTCATTTGCGGCCACGAGTGTGATAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGCGAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAACTCATACGTGCCACCC TGCCCGCACCGGAGTCTTGGGGTCTTCCGTATTTCTGTTCCGCCGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGACGTTGAGGACGTTGAGGACCGGAGGTCGAG TTCAACTGGTATGTCGATGGCTAGAAAGTACAAATGCAAGACCTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGCGTCTTGACTGTGCTGCACGAGGACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
436	IL2-116 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAACTCATACGTGCCACCC TGCCCGCACCGGAGTCTTGGGGTCTTCCGTATTTCTGTTCCGCCGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGGACGTTGAGTGGACGTTGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACCTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGTCGACCAAGGACTGGCTCAACGGAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

437	IL2-088 fused to IgG1 Fc N297G	<p>GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTGTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGCGAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGCTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAACTCATACGTCGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTCCCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGACGCTGATGAGGACCGGAGGTCGAGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACCTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTGACTGTGCTGCACCGAGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTCTGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAACTCAAACGGGCGAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGCTGGCAGCAGGTAATGTGTTTTCTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA</p>
438	IL2-097 fused to IgG1 Fc N297G	<p>GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGCGAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAACTCATACGTCGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTCCCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGGAAGTGTGGAAGTGTGCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACCTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTGTACTGTCTGCACCGAGGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTCTGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAACTCAAACGGGCGAGGAGAAC AATTACAAGACGACGCCACCGAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGCTGGCAGCAGGTAATGTGTTTTCTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA</p>

439	R38N/H16L mutein fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGTTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCCCACC TGCCCCGACCCGAGCTGCTTGGGGTCTTCCGTATTTCTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGACGTCGTAGTGAGGACCGGAGGAGGTCAGG TTCAACTGGTATGTCGATGGCTAGAAAGTACAAATGCAAAAGACATAAATCCCGCGAAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGACTGGCTCAACCGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCCAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGACGAGGCGCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
440	IL2-098 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCCCACC TGCCCCGACCCGAGCTGCTTGGGGTCTTCCGTATTTCTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGGACGTCGTGGAAGTTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCGAAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGGACTGGCTCAACCGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCCAGGTTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGCAAGAGGCGCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

238

443	IL2-092 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGAAGAAGTTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGGACGTTGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCTAGAAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGCGAGCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTAATGACGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
444	IL2-110 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGCAGAGTTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGGACGTTGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGTCGACCAAGGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGCGAGCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTAATGCAAGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

445	IL2-Inactive fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGGCAAGTTTGTATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGAACTTAAACCACTTGAGGAAGCC TTGAATGGTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCGATATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTGAATGCTGGTGGAGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACTGCTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTCTCCGCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTGACGCTGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACAACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTGTGACTGTGCTGCACCGAGCTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
446	IL2-99 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAACTGCTCACGTTTAACTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGGAACTCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACTGCTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTCTCCGCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGGACGCTGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACAACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTGTGACTGTGCTGCACCGAGGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

447	IL2-101 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGACGCTGATGAGGACCGGAGGTCGAGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTGTGACTGTGCTGCACGAGGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGCGAGCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
448	IL2-102 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTCAATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGGACGCTGATGAGGACCGGAGGTCGAGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTGTGACTGTGTCGACGAGGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGCGAGCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

449	IL2-103 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGCTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGGAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAAACCTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTGACGTTGCGCATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACAAATCCCGCGAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
450	IL2-104 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGCTCCGTCCAAAAACTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAAACCTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTGGAAGTGTGCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCGAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTCTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACCGAGTCTGGATTTCGGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

451	IL2-114 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGCAGAACTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACAGACGCTTACTGCTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACTACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTGACGCTGATGAGGACCGGAGGTCGAGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACAAATCCCGCGAAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
452	IL2-117 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGCAGAACTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACTGCTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTGGAAGTGTGGAAGTGTGGAAGTGTGGAAGTGTGGAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAAACCCCGCGAAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

453	IL2-108 fused to IgG1 Fc N297G	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAATCATACGTGCCCCACC TGCCCCGACCCGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTGACGTTGCGCATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAGTTGACCGTG GATAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTAATGACGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
1014	IL2-124 fused to IgG1 Fc N297G allotype m3	GCCCTGCACTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGAAATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAAACTTACTAGAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAATCATACGTGCCCCACC TGCCCCGACCCGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGCTGAGTGGACGCTGCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCAAGGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGATGACGAAAAACAGGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAGTTGACCGTG GATAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTAATGCAAGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

1015	IL2-127 fused to IgG1 Fc N297G allotype m3	GCCCTGCACTCCTCCTCAACTAAATAAGACGCAACTTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACGTGAAGGAAGCGAAACGACGTTTATGCGAAATATGAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGCTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAACTCATACTACGTGCCACCC TGCCCGCACCGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGACGCTGATGAGGACCGGAGGTCGAG TTCAACTGGTATGTCGATGGCTAGAAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCCAAGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGGAAGAGATGAGAAAAACCCAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
1016	IL2-130 fused to IgG1 Fc N297G allotype m3	GCCCTGCACTCCTCCTCAACTAAATAAGACGCAACTTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACGTGAAGGAAGCGAAACGACGTTTATGCGAAATATGCGAAGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAACTCATACTGCTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGGACGCTGATGGAAGTCCGAGCCGAGGTCGAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACCGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGGAAGAGATGAGAAAAACCCAGGTTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

1017	IL2-062 fused to IgG1 Fc N297G allotype m3	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCACTTTCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGCGAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGCTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAACTCATACGTCGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTCTCCGCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGACGCTGATGAGGACCGGAGGTCGAG TTCAACTGGTATGTCGATGGCTAGAAAGTACAAATGCAAGACCTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGGAAGAGATGAGAAAAACCCAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAACTCAAACGGGCGCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
1018	IL2-118 fused to IgG1 Fc N297G allotype m3	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTCACTTTCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGAAGAACTGCGACAACTCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAACTCATACGTCGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTCTCCGCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGGACGCTGATGGAAGTTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAGAACTAAACCCCGCAAGAACAGTACCGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCGAGGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGGAAGAGATGAGAAAAACCCAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAACTCAAACGGGCGCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

1019	IL2-068 fused to IgG1 Fc N297G allotype m3	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCTAAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAGCCGGAAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGACGTCGTGATGAGGACCGGAGGAGGTCGAG TTCAAATGTTATGTCGATGGCGTAGAAGTACAAATGCAAGACCTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCCAGGACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGGAAGAGATGCAAAAAACAGGTGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGGAATCCAAACGGGCGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
Exemplary IL-2-Fc Fusion Proteins (IgG1 Fc LALAPG)		
454	IL2 C125S fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCTAAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGTA TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCAGCGGGGTCTTCCGTATTTCTTGTTCGCGGAAGCCGGAAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTGTGACGTCGATGAGGACCGGAGGATCAAG TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACCTAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCCAGGACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGGAAGAGTTCGAGTTCGAGTTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGGAATCCAAACGGGCGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

[illegible]

457	IL2-062 fused to IgG1 Fc LALAPG	<p>GCCCCACGTCCTCTCAAACTAAAAAGACGCAACTTCAGCTTGAGAAATCTCTTCTCGACCTTCAGATG</p> <p>AATTTGAAACGGAAATCAATAAATTAACAAAATCCTAAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG</p> <p>CCAAAAAAGGCCACTGAGTTGAAACACACTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC</p> <p>TTGAATCTTGCTCCGTCCAAAAACCTTTTCATTTGCGGCCACAGATCTGATAAGCAACATCAACAGTGTATC</p> <p>GTCTGGAACCTGAAAGGAAGCGAAACGACAGCTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT</p> <p>GAAATTTCTCAATTCGATGGATCACTTTTATAGCCAATATCATCATCAGCACTGCTGCTGGTGGAGGATCG</p> <p>GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAACTCATATAGTCCCCACCC</p> <p>TGCCCCGACCCGGAGGCAGCAGGGGGTCTTCCGTATCTTGTGTTTCCGCGAAGCCGGAAGGACGACGCTT</p> <p>ATGATTAGCAGGACTCCCGAAGTGACGTGCGTGTGTCGACGTGTCGATGAGGACCCGGAGGTCAAG</p> <p>TTCAACTGGTATGTGATGGCTAGAAATACACAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAAT</p> <p>TCGACATACAGAGTAGTAGCGTCTTGACTGTGTGCTGCAACGAGGACTGGCTCAACGGAAAGGAGTATAAG</p> <p>TGTAAAGTATCGAATAAAGCACTTGGTGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGGTCAGCCA</p> <p>AGAGAAACCCCAAGTCTACACTCTGCCCTAGCCGACGAGCTTACGAAAAAACGAGGTGTGCTGCTCACT</p> <p>TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGCGGTAGAGTGGGAATCAACCGGCGAGCCAGAGAAC</p> <p>AAATTACAAGACGACGCCACCACTGTGCTGATTCGGAATGGGAGCTTTTCTTGTACTCAAAAGTTGACCCGTG</p> <p>GATAAAAGCCGGTGGCAGCAGGGTAAATGTGTTTTTCATGCTCGGTAATGCAACGAGGCCCTCCATAACCAT</p> <p>TATACGAGAAAAAGCCTTTCGCTCTCAACCCGGGAAA</p>
458	IL2-118 fused to IgG1 Fc LALAPG	<p>GCCCCACGTCCTCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG</p> <p>AATTTGAAACGGAAATCAATAAATTAACAAAATCCTAAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG</p> <p>CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC</p> <p>TTGAATCTTGCTCCGTCCAAAAACCTTTTCATTTGCGGCCACAGATCTGATAAGCAACATCAACAGTGTATC</p> <p>GTCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT</p> <p>GAAATTTCTCAATTCGATGGATCACTTTTATAGCCAATATCATCATCAGCACTGCTGCTGGTGGAGGATCG</p> <p>GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAACTCATATAGTCCCCACCC</p> <p>TGCCCCGACCCGGAGGCAGCAGGGGGTCTTCCGTATCTTGTGTTTCCGCGAAGCCGGAAGGACGACGCTT</p> <p>ATGATTAGCAGGACTCCCGAAGTGACGTGCGTGTGTCGACGTGTCGATGAGGACCCGGAGGTCAAG</p> <p>TTCAACTGGTATGTGATGGCTAGAAATACACAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAAT</p> <p>TCGACATACAGAGTAGTAGCGTCTTGACTGTGTGCTGCAACGAGGACTGGCTCAACGGAAAGGAGTATAAG</p> <p>TGTAAAGTATCGAATAAAGCACTTGGTGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGGTCAGCCA</p> <p>AGAGAAACCCCAAGTCTACACTCTGCCCTAGCCGCGACGAGCTTACGAAAAAACGAGGTGTGCTGCTCACT</p> <p>TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGCGGTAGAGTGGGAATCAACCGGCGAGCCAGAGAAC</p> <p>AAATTACAAGACGACGCCACCACTGTGCTGATTCGGAATGGGAGCTTTTCTTGTACTCAAAAGTTGACCCGTG</p> <p>GATAAAAGCCGGTGGCAGCAGGGTAAATGTGTTTTTCATGCTCGGTAATGCAACGAGGCCCTCCATAACCAT</p> <p>TATACGAGAAAAAGCCTTTCGCTCTCAACCCGGGAAA</p>

459	IL2-035 fused to IgG1 Fc LAL/APG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAACCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGCGAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGTGACGTGACGT TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAGAACAGTACAA TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACCGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGCGAGCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
460	IL2-073 fused to IgG1 Fc LAL/APG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAACCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGCGAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGT TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAGAACAGTACAA TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCAAGGACTGGCTCAACCGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACTTGGTGCACCTATCGAGAAAAAGGAGTCTCAAGGCTAAGGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGCGAGCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

461	IL2-077 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTCATTTGCGGCCACGAGATCTGATACGTAAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGTGACGTGACGT TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAGAACAGTACAAT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGCGAGCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
462	IL2-043 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTCATTTGCGGCCACGAGATCTGATAAGCCTGATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGT TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAGAACAGTACAAT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAAGGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGCGAGCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

463	IL2-036 fused to IgG1 Fc LALAPG	<p>GCCCCACGTCCTCCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCATCTCTTCTCGACCTTCAGATG</p> <p>AATTTGAAACGGAAATCAATAAATTAACAAAATCCTAAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG</p> <p>CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAAGCC</p> <p>TTGAATCTTGCTCCGTCCAAAAACCTTTTCATTTGCGGCCACAGATCTGATAAGCAGCATCAACGTTGATC</p> <p>GTCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT</p> <p>GAAATTTCTCAATTCGATGGATCACTTTTATAGCCAATATCATCATCAGCAGCTTGACTGGTGGAGGATCG</p> <p>GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAACTCATATGCTCCCCACCC</p> <p>TGCCCCGACCCGGAGGCAGCAGGGGGTCTTCCGTATCTTGTGTTCCGCGAAGCCCGAAGGACGACGCTT</p> <p>ATGATTAGCAGGACTCCCGAAGTGACGTGCGTGTGTCGACGTGTCGATGAGGACCCGGAGGTCAAG</p> <p>TTCAACTGGTATGTGATGGCTAGAAATACACAATGCAAAAGACTAAACCCCGCGAAGAACAGTACAAT</p> <p>TCGACATACAGAGTAGTAGCGTCTTGACTGTGTGTCGACAGGACTGGTCAACCGGAAAGGAGTATAAG</p> <p>TGTAAAGTATCGAATAAAGCACTTGGTGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGGTCAGCCA</p> <p>AGAGAAACCCCAAGTCTACACTCTGCCCTAGCCGACGAGCTTACGAAAAAACGAGGTGTCGCTCACT</p> <p>TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGCGGTAGAGTGGGAATCAACCGGCGAGCCAGAGAAC</p> <p>AAATTACAAGACGACGCCACAGTGTGGATTCCGATGGGAGCTTTTCTTGTACTCAAAAGTTGACCCGTG</p> <p>GATAAAAGCCGGTGGCAGCAGGGTAAATGTGTTTTTCATGCTCGGTAATGCAACGAGGCCCTCCATAACCAT</p> <p>TATACGAGAAAAAGCCTTTCGCTCTCAACCCGGGAAA</p>
464	IL2-068 fused to IgG1 Fc LALAPG	<p>GCCCCACGTCCTCCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCATCTCTTCTCGACCTTCAGATG</p> <p>AATTTGAAACGGAAATCAATAAATTAACAAAATCCTAAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG</p> <p>CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAAGCC</p> <p>TTGAATCTTGCTCCGTCCAAAAACCTTTTCATTTGCGGCCACAGATCTGATAAGCAACATCAACGTTGAGC</p> <p>GTCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT</p> <p>GAAATTTCTCAATTCGATGGATCACTTTTATAGCCAATATCATCATCAGCAGCTTGACTGGTGGAGGATCG</p> <p>GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAACTCATATGCTCCCCACCC</p> <p>TGCCCCGACCCGGAGGCAGCAGGGGGTCTTCCGTATCTTGTGTTCCGCGAAGCCCGAAGGACGACGCTT</p> <p>ATGATTAGCAGGACTCCCGAAGTGACGTGCGTGTGTCGACGTGTCGATGAGGACCCGGAGGTCAAG</p> <p>TTCAACTGGTATGTGATGGCTAGAAATACACAATGCAAAAGACTAAACCCCGCGAAGAACAGTACAAT</p> <p>TCGACATACAGAGTAGTAGCGTCTTGACTGTGTGTCGACAGGACTGGTCAACCGGAAAGGAGTATAAG</p> <p>TGTAAAGTATCGAATAAAGCACTTGGTGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGGTCAGCCA</p> <p>AGAGAAACCCCAAGTCTACACTCTGCCCTAGCCGACGAGCTTACGAAAAAACGAGGTGTCGCTCACT</p> <p>TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGCGGTAGAGTGGGAATCAACCGGCGAGCCAGAGAAC</p> <p>AAATTACAAGACGACGCCACAGTGTGGATTCCGATGGGAGCTTTTCTTGTACTCAAAAGTTGACCCGTG</p> <p>GATAAAAGCCGGTGGCAGCAGGGTAAATGTGTTTTTCATGCTCGGTAATGCAACGAGGCCCTCCATAACCAT</p> <p>TATACGAGAAAAAGCCTTTCGCTCTCAACCCGGGAAA</p>

465	IL2-106 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAATCCTGAATCTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGCGAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAATCATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGTGACGTGACGT TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACATAAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA
466	IL2-107 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAATCCTGAATCTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGCGAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAATCATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGT TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACATAAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAAGGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA

467	IL2-119 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGGTCTTCCGTATTTCTGTTCCGCGAAGCCGAGGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGACGAGGCGCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
468	K35E/D84V mutein fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGTGTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGGTCTTCCGTATTTCTGTTCCGCGAAGCCGAGGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGCTGAGTGCAGCTGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGCAAGAGGCGCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

469	IL2-115 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAAATCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGGGGGTCTTCCGTATTTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGTGACGTGACGT TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAGAACAGTACAA TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
470	IL2-109 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAAATCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGGGGGTCTTCCGTATTTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGT TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAGAACAGTACAA TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCAAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAAGGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

471	IL2-113 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGTCCTTCCGTATTTCTGTTCCGCGAAGCCGAGGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGTGACGTGACGT TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACAAATCCCGCGAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACCGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
472	IL2-120 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGTCCTTCCGTATTTCTGTTCCGCGAAGCCGAGGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGT TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACAAATCCCGCGAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACCGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACTTGGTGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

[illegible]

475	IL2-088 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAATCTATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGGTCTTCCGTATTTCTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGTGACGTGACGT TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACAAATCCCGCGAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGACAGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
476	IL2-097 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAATCTATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGGTCTTCCGTATTTCTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGT TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACAAATCCCGCGAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACCAAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGCAAGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

477	R38N/H16L mutant fused to IgG1 Fc LALAPG	<p>GCCCTACGTCCTCTCAACTAAAAAGACGCAACTTCAGCTTGAGTTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAAATTACAAAATCTTAAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAAGCC TTGAATCTTGCTCCGTCCTCAAAAACTTTTCAATTTGCGGCCACAGATCTGATAAGCAACATCAACAGTGATC GTCTCGAACTGAAAGGAAGCGAAACGACGCTTATATGCGAATATGACAGCAAGAACTGCGACAATCGTT GAAATTTCTCAATCGATGGATCACTTTTATAGCCAACTCATCATCAGCACTGTTGACTGGTGGAGGATCG GGAGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAACTCATATCGTGCCTCCACCC TGCCCGCACCGGAGGACGAGGGGTCCTTCGTTATCTTGTTCGCGCAAGCCGGAAGGACAGCTT ATGATTAGCAGGACTCCGAAAGTGACGTCGTCGTAGTCGACGTCGTGCGATGAGGACCCGAGGTCGAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACACAATCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATA CAGAGTAGTGAGCGCTTTTGACTGTGTGTCAC CAGGACTGGTCAACCGAAGAGGATATAAG TGTAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTAGCCGCGCAGAGCTTACGAAAAACCCAGGTGTCTGCTCACT TGTTTGGTGAAGGGTTTCTATCCGAGCGATATTGCGTGAAGTGGGAATCCAAACGGGACGACGAGAAC AATTACAAGACGACGCGACCGGTAATGTGTTTTTCACTGCTCGGTAAATGCAACGAGGCCCTCCATAACCAT TATACGCAAGAAAGCCCTTTCGCTCTCACCCGGGAAA</p>
478	IL2-098 fused to IgG1 Fc LALAPG	<p>GCCCTACGTCCTCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAAATTACAAAATCTTAAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAAGCC TTGAATCTTGCTCCGTCCTCAAAAACTTTTCAATTTGCGGCCACAGATCTCTGATAAGCAACATCAACAGTGATC GTCTCGAACTGAAAGGAAGCGAAACGACGCTTATATGCGAATATGACAGCAAGAACTGCGACAATCGTT GAAATTTCTCAATCGATGGATCACTTTTATAGCCAACTCATCATCAGCACTGTTGACTGGTGGAGGATCG GGAGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAACTCATATCGTGCCTCCACCC TGCCCGCACCGGAGGACGAGGGGTCCTTCGTTATCTTGTTCGCGCAAGCCGGAAGGACAGCTT ATGATTAGCAGGACTCCGAAAGTGACGTCGTCGTAGTCGACGTCGTGCGATGAGGACCCGAGGTCGAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACACAATCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATA CAGAGTAGTGAGCGCTTTTGACTGTGTGTCAC CAGGACTGGTCAACCGAAGAGGATATAAG TGTAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTAGCCGCGCAGAGCTTACGAAAAACCCAGGTGTCTGCTCACT TGTTTGGTGAAGGGTTTCTATCCGAGCGATATTGCGTGAAGTGGGAATCCAAACGGGACGACGAGAAC AATTACAAGACGACGCGACCGGTAATGTGTTTTTCACTGCTCGGTAAATGCAACGAGGCCCTCCATAACCAT TATACGCAAGAAAGCCCTTTCGCTCTCACCCGGGAAA</p>

479	IL2-100 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACAGACGCTTACTGCTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGAGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGTGACGTGACGT TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAGAACAGTACAA TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGACAGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
480	IL2-090 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGAGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGT TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAGAACAGTACAA TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAAGGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGCAAGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

481	IL2-092 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGAAGAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAATCATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGTGACGTGACGT TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAGAACAGTACAA TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGCGAGGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
482	IL2-110 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGCAGAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAATCATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGT TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAGAACAGTACAA TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAAGGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGCGAGGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

483	IL2-Inactive fused to IgG1 Fc LALAPG	<p>GCCCCACGTCCTCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCATCTCTTCTCGACCTTCAGATG</p> <p>AATTTGAAACGGAATCAATAAATACAAAAATCCTAAACTTACTAGAAATGCTCACGGCAAAAGTTTGTCTATG</p> <p>CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC</p> <p>TTGAATGGTGTCCGTCCAAAAACCTTTTCATTTGCGGCCACAGATCTGATAAGCGATATCAACCGTGTATC</p> <p>GTCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT</p> <p>GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCATCAGCACGCTTGACTGGTGGGAGGATCG</p> <p>GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAACTCATATGCTGCCACCC</p> <p>TGCCCCGACCGGAGGCAGCAGGGGGTCTTCCGTATCTTGTGTTCCGCGAAGCCGGAAGGACGACGCTT</p> <p>ATGATTAGCAGGACTCCCGAAGTGACGTGCGTGTAGTCGACGTGTCGATGAGGACCCGGAGGTCAAG</p> <p>TTCAACTGGTATGTGATGGCTAGAAATACACAATCAAAAGACTAAACCCCGCAAGAACAGTACAAAT</p> <p>TCGACATACAGAGTAGTAGCGTCTTGACTGTGTGCTGCAACAGGACTGGCTCAACGGAAAGAGTATAAG</p> <p>TGTAAAGTATCGAATAAAGCACTTGGTGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGGTCAGCCA</p> <p>AGAGAAACCCCAAGTCTACACTCTGCCCTAGCCGACGAGCTTACGAAAAAACGAGGTGTGCTGCTCACT</p> <p>TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGCGGTAGAGTGGGAATCAACCGGCGAGCCAGAGAAC</p> <p>AAATTACAAGACGACGCCACAGTGTGGATTCGGATGGGAGCTTTTCTTGTACTCAAAAGTTGACCCGTG</p> <p>GATAAAAGCCGGTGGCAGCAGGGTAAATGTGTTTTTCATGCTCGGTAATGCAACGAGGCCCTCCATAACCAT</p> <p>TATACGAGAAAAAGCCTTTCGCTCTCACCCGGGAAA</p>
484	IL2-99 fused to IgG1 Fc LALAPG	<p>GCCCCACGTCCTCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCATCTCTTCTCGACCTTCAGATG</p> <p>AATTTGAAACGGAATCAATAAATACAAAAATCCTAAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG</p> <p>CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC</p> <p>TTGAATCTTGTCCGTCCAAAAACCTTTTCATTTGCGGCCACAGATCTGATAAGGAAACATCAACCGTGTATC</p> <p>GTCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT</p> <p>GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCATCAGCACGCTTGACTGGTGGGAGGATCG</p> <p>GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAACTCATATGCTGCCACCC</p> <p>TGCCCCGACCGGAGGCAGCAGGGGGTCTTCCGTATCTTGTGTTCCGCGAAGCCGGAAGGACGACGCTT</p> <p>ATGATTAGCAGGACTCCCGAAGTGACGTGCGTGTAGTCGACGTGTCGATGAGGACCCGGAGGTCAAG</p> <p>TTCAACTGGTATGTGATGGCTAGAAATACACAATCAAAAGACTAAACCCCGCAAGAACAGTACAAAT</p> <p>TCGACATACAGAGTAGTAGCGTCTTGACTGTGTGCTGCAACAGGACTGGCTCAACGGAAAGAGTATAAG</p> <p>TGTAAAGTATCGAATAAAGCACTTGGTGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGGTCAGCCA</p> <p>AGAGAAACCCCAAGTCTACACTCTGCCCTAGCCGACGAGCTTACGAAAAAACGAGGTGTGCTGCTCACT</p> <p>TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGCGGTAGAGTGGGAATCAACCGGCGAGCCAGAGAAC</p> <p>AAATTACAAGACGACGCCACAGTGTGGATTCGGATGGGAGCTTTTCTTGTACTCAAAAGTTGACCCGTG</p> <p>GATAAAAGCCGGTGGCAGCAGGGTAAATGTGTTTTTCATGCTCGGTAATGCAACGAGGCCCTCCATAACCAT</p> <p>TATACGAGAAAAAGCCTTTCGCTCTCACCCGGGAAA</p>

485	IL2-101 fused to IgG1 Fc LAL/APG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCACTTTCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGTGACGTGACGT TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAGAACAGTACAAT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
486	IL2-102 fused to IgG1 Fc LAL/APG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCACTTTCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGGAGCAGGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGT TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAGAACAGTACAAT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAAGGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

487	IL2-103 fused to IgG1 Fc LALAPG	<p>GCCCCACGTCCTCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCATCTCTTCTCGACCTTCAGATG AATTTGAAACGGAATCAATAAATTAACAAAATCCTAAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACCTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCATTTGCGGCCACAGATCTGATAAGGAACATCAACCGTGATC GTCCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATTCGATGGATCACTTTTATAGCCAATCTATCATCAGCACTGCTGCTGGTGGAGGATCG GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAAACCTATATGCTCCCCC TGCCCCGACCCGGAGGCAGCAGGGGGTCTTCCGTATCTTGTGTTCCGCGAAGCCGGAAGGACGACGCTT ATGATTAGCAGGACTCCCGAAGTGACGTGCTGTCGTAGTCGACGTGTCGATGAGGACCCGGAGGTCAAG TTCAACTGGTATGTGATGGCTAGAAATACACAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTAGCGTCTTGACTGTGTGCTGCAACGAGGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGATATCGAATAAAGCACTTGTTGTCACCTATCGAGAAAAACGATCTCAAGGCTAAGGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTAGCCGACGAGCTTACGAAAAAACGAGGTGTCGCTCACT TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGCGGTAGAGTGGGAATCAACCGGCAGCCAGAGAAC AATTACAAGACGACGCCACGAGTGTGGATTCGGAATGGGAGCTTTTCTTGTACTCAAAAGTTGACCCGTG GATAAAAGCCGGTGGCAGGAGGTAAATGTGTTTTTCATGCTCGGTAATGCAACGAGGCCCTCCATAACCAT TATACGAGAAAAAGCCTTTCGCTCTCAACCCGGGAAA</p>
488	IL2-104 fused to IgG1 Fc LALAPG	<p>GCCCCACGTCCTCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCATCTCTTCTCGACCTTCAGATG AATTTGAAACGGAATCAATAAATTAACAAAATCCTAAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACCTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCATTTGCGGCCACAGATCTGATAAGGAACATCAACCGTGAGC GTCCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATTCGATGGATCACTTTTATAGCCAATCTATCATCAGCACTGCTGCTGGTGGAGGATCG GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAAACCTATATGCTCCCCC TGCCCCGACCCGGAGGCAGCAGGGGGTCTTCCGTATCTTGTGTTCCGCGAAGCCGGAAGGACGACGCTT ATGATTAGCAGGACTCCCGAAGTGACGTGCTGTCGTAGTCGACGTGTCGATGAGGACCCGGAGGTCAAG TTCAACTGGTATGTGATGGCTAGAAATACACAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTAGCGTCTTGACTGTGTGCTGCAACGAGGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGATATCGAATAAAGCACTTGTTGTCACCTATCGAGAAAAACGATCTCAAGGCTAAGGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTAGCCGACGAGCTTACGAAAAAACGAGGTGTCGCTCACT TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGCGGTAGAGTGGGAATCAACCGGCAGCCAGAGAAC AATTACAAGACGACGCCACGAGTGTGGATTCGGAATGGGAGCTTTTCTTGTACTCAAAAGTTGACCCGTG GATAAAAGCCGGTGGCAGGAGGTAAATGTGTTTTTCATGCTCGGTAATGCAACGAGGCCCTCCATAACCAT TATACGAGAAAAAGCCTTTCGCTCTCAACCCGGGAAA</p>

489	IL2-114 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCAGCAGAACTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTTGCTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGCGGGGTCTTCCGTATTTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGTGACGTGACGT TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACAAATCCCGCGAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACCGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGCTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
490	IL2-117 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCAGCAGAACTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTTGCTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGCGGGGTCTTCCGTATTTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGACGTGCTGACGTGACGTGACGTGACGTGACGTGACGT TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACAAATCCCGCGAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACTGTGCTGCACAGGACTGGCTCAACCGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACTTGGTGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGCGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGCTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

491	IL2-108 fused to IgG1 Fc LALAPG	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAACATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGGACGAGGGGTCTTCCGTATCTTGTTCGCGCGAAGCCGAGGAGGACACGCTT ATGATTAGCAGGACTCCGAAAGTGACGTGCTGACGTGCGATGAGGACCGGAGGTCAAG TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACTAAACCCCGCGAAGAACAGTACAAT TCGACATACAGAGTAGTGCGCTTTGACTGTGCTGCACAGGACTGGCTCAACGGAAGAGGATATAAG TGTAAGATATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCGCGACGAGCTTACGAAAAACCAAGGTCTCGCTCACT TGTTTGGTGAAGGGTTTCTATCCGAGCGATATTGCGTAGAGTGGGAATCCAAACGGGCGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGGATGGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGACAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
Exemplary IL-2-Fc Fusion Proteins (IgG1 Fc N297G Mut215)		
492	IL2 C125S fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAAACTTACTAGAAATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGTA TTGAAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGCGAAGCCGAGGAGGACACGCTT ATGATTAGCAGGACTCCGAAAGTGACGTGCTGACGTGCGATGAGGACCGGAGGTCAAG TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACTAAACCCCGCGAAGAACAGTACGCT TCGACATACAGAGTAGTGCGCTTTGCGAGGTGCTGCACGTTGACTGGCTCAACGGAAGAGGATATAAG TGTAAGATATCGAATAAGGCACCTTCCGCGACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCGCGACGAGCTTACGAAAAACCAAGGTCTCGCTCACT TGTTTGGTGAAGGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGGAATCCAAACGGGCGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGGATGGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGACAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

493	Stabilized IL-2 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAACTCATACGTGCCCCACC TGCCCCGACCCGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAATGCTGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCTAGAAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACGGTCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTCTGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
494	IL2-037 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGGATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAACTCATACGTGCCCCACC TGCCCCGACCCGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAATGCTGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACGGTCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTCTGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

495	IL2-062 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA
496	IL2-118 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA

497	IL2-035 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAACCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTTGCTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGCTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGAGGACCGGAGGTCGAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTGCTGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
498	IL2-073 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAACCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTTGCTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGTTCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCATCTACGACGCTTGAATGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGAGGACCGGAGGTCGAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTGCTGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

499	IL2-077 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTCATTTGCGGCCACGAGATCTGATACGTAAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCCAAGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGACAGAAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
500	IL2-043 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTCATTTGCGGCCACGAGATCTGATAAGCCTGATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAGTATCGAATAAGGCACTTCCCGCACCTATCGAGAAAAAGTCTCCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

501	IL2-036 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAGCATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCAGCTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAATCTATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAACGATCTCCAAGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA
502	IL2-068 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACAATCAACGTGAGC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAAGCAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCAGCTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAATCTATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAACGATCTCCAAGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA

503	IL2-106 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGCTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAAATCTACATAGCTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAATGCTGACGCTGAGGACCGGAGGTCGAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGACAGAAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
504	IL2-107 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAAATCTACATAGCTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAATGCTGACGCTGAGGACCGGAGGTCGAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

505	IL2-119 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGAACCTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
506	K35E/D84V mutein fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTCAATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTTGAACCTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

507	IL2-115 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAATCGACGTGCGCATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACGCTGCTGACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCCAAGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
508	IL2-109 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAATCGACGTGCGCATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACGCTGCTGACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTCTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACCGAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

509	IL2-113 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACTACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTTCAGGTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAGTTGACCGTG GATAAAGCCGCTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
510	IL2-120 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACTGCTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTTCAGGTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAGTTGACCGTG GATAAAGCCGCTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

511	R38Q/D84V mutein fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGTGTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGCGAATATGAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATATCAGCAGCTTACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAACTCATACGTGCCCCACC TGCCCCGACCCGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCTAGAAATACAAATGCAAGACTTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTTGGTAGAGTGGAAATCCAAACGGGACGACAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCGGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGCTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA
512	IL2-116 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAACTCATACGTGCCCCACC TGCCCCGACCCGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCGTCTGATCGACGTGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAGACTTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTTGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCGGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAGCCGCTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA

513	IL2-088 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATGCTTACTAATGCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGCGAAATATGAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGCTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGAGGACCGGAGGTCGAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTTCAGGTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTGCTGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGACAGAAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
514	IL2-097 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATGCTTACTAATGCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGAGGACCGGAGGTCGAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTTCAGGTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTGCTGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

515	R38N/H16L mutein fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGTTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCTAGAAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTCTGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
516	IL2-098 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTCATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTCTGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

517	IL2-100 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATGCTTACTAATGCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGCGAAATATGAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCAGCTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTTCAGGTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
518	IL2-090 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACCTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCATCATCAGCAGCTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTTCAGGTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

519	IL2-092 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGAAGAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAATCTATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA
520	IL2-110 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGCAGAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAATCTATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA

521	IL2-Inactive fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGGCAAGTTTGTATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGAACTTAAACCACTTGAGGAAGCC TTGAATGGTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCGATATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAAACCTCATACGTGCCACCC TGCCCGCACCGGAGTCTTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTCGACGTGCGCATGAGGACCGGAGGTCAAG TTCAAATGGTATGTCTGATGGCTAGAAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACGGTCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCCAAGCTAAGGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTGGTAGAGTGGAAATCCAAACGGGACGACAGAAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
522	IL2-99 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAACTGCTCACGTTTAACTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTCAATTTGCGGCCACGAGATCTGATAAGGAACTCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAAACCTCATACGTGCCACCC TGCCCGCACCGGAGTCTTTGGGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTCGACGTGCGCATGAGGACCGGAGGTCAAG TTCAAATGGTATGTCTGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACGGTCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCCAAGGTAAAGGTTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTCTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

523	IL2-101 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAATGCTGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
524	IL2-102 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAATGCTGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

525	IL2-103 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGGAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCAGCTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTTCAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGACAGAAAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
526	IL2-104 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCAGCTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGCTTTCAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAC AATTACAAGACGACGCCACGAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

527	IL2-114 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAATCCTAACTTACTAGATGCTCAGCAGAACTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACGCTGCTGACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA
528	IL2-117 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAATCCTAACTTACTAGATGCTCAGCAGAACTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAACTCATACGTGCCACCC TGCCCGCACCGGAGCTGCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGACGCTGCTGACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAGTATCGAATAAGGCACTTCCCGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA

529	IL2-108 fused to IgG1 Fc N297G Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAATCAATAATTACAAAAATCCTGAATCTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGTCTTGGGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTCGACGTGCGCATGAGGACCGGAGGTCAAG TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAGAATAAACCCCGCAAGAACAGTACGGT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTCCCGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCAAGGTCTGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTGGTAGAGTGGAAATCCAAACGGGCGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGACAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
Exemplary IL-2-Fc Fusion Proteins (IgG1 Fc LALAPG Mut215)		
530	IL2 C125S fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAATCAATAATTACAAAAATCCTAAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGTA TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCGGAGCAGAGTGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTCGACGTGCGCATGAGGACCGGAGGTCAAG TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAGAATAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGAGGTGCTGCACGTTGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCAAGGTCTGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTGGTAGAGTGGAAATCCAAACGGGCGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGACAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

531	Stabilized IL-2 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGCTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTCGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTCGTAGTCGACGTGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAT TCGACATACAGAGTAGTGAGCGCTTTCAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
532	IL2-037 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGGATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTCGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTCGTAGTCGAGCTGACGCTGCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAT TCGACATACAGAGTAGTGAGCGCTTTCAGGTGCTGCACGTTGACTGGCTCAACGGAAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACAGGTGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

533	IL2-062 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAAATCTTCTTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAAATGGTATGTCGATGGCTAGAAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACGGTCTGCACGTTGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCCAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTAATCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
534	IL2-118 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCCGAGGTCAAG TTCAAATGGTATGTCGATGGCTAGAAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACGGTCTGCACGTTGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCCAGGTTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTAATCAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

535	IL2-035 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAACCAATAATTACAAAAATCCTAAATCTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGACGAGGTGCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACGCTGCTGACGTTGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
536	IL2-073 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAACCAATAATTACAAAAATCCTAAATCTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGTTCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGACGAGGTGCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACGCTGCTGACGTTGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

537	IL2-077 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATACGTAAACATCAACGTGATC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGCTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTGTTCCGCCGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTCTGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCTAGAAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAT TCGACATACAGAGTAGTGAGCGTCTTGACGCTGCTGACGCTTACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACAGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCCAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGACGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
538	IL2-043 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCCTGATCAACGTGATC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTGTTCCGCCGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTCTGAGTCTGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAT TCGACATACAGAGTAGTGAGCGTCTTGACGCTTCTGACGAAACAGATCTCAAGGCTAAGGTCAGCCA TGTAAGTATCGAATAAGGCACTTGGTGCACCTATCGAGAAAAAGGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCCAGGTCTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGCAAGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

539	IL2-036 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAGCATCAACGTGATC GTCTTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGCTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGCGATGAGGACCGGAGGTCAAG TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGCTTTGCGAGGTGCTGCACGTTGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
540	IL2-068 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACAACCAACGTGAGC GTCTTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGCGATGAGGACCGGAGGTCAAG TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGCTTTGCGAGGTGCTGCACGTTGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAAGGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCGAGGTCTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTTCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

541	IL2-106 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGCTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTATACGTCGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTCTGACGTCGATGAGGACCGGAGGTCAAG TTCAAATGTTATGTCGATGGCTAGAAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAT TCGACATACAGAGTAGTGAGCGTCTTGACGCTGCTGACGCTTACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCTATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
542	IL2-107 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACTGTCGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGAGTCTGAGTCGACGTCGATGAGGACCGGAGGTCAAG TTCAAATGTTATGTCGATGGCTAGAAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAT TCGACATACAGAGTAGTGAGCGTCTTGACGCTTACTGCAAAAAACGATCTCAAGGCTAAGGTCAGCCA TGTAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCTATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

543	IL12-119 fused to IgG1 Fc LALAPG Mut215	<p>GCCCCACGTCCTCCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG AATTTGAAACGGAAATCAATAAATTAACAAAACTCTGAACCTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAACTTTTCATTTGCGGCCACAGATCTGATAAGCAACATCAACAGTGTATC GTCCTGGAACCTGAAAGGAAGCGAAACGACAGCTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTATAGCCAATCTATCATCAGCACGCTTGACTGGTGGAGGATCG GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAAACTCATAGTCCCCACCC TGCCCCGACCCGGAGGCAGCAGGTGCTCTTCCGTATCTTGTGTTCCGCGAAGCCGGAAGGACACGCTT ATGATTAGCAGGACTCCCGAAGTGACGTGCTGCTGACGCTGTCGATGAGGACCCGGAGGTCAAG TTCAACTGGTATGTGATGGCTAGAAATACAAATCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTAGCGTCTTGACAGGTGCTGCACTGTTGACTGGCTCAACGGAAAGAGTATAAG TGTAAGATATCGAATAAAGCACTTGTTGTCACCTATCGAGAAAAACGATCTCAAGGCTAAGGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTAGCCGACGAGCTTACGAAAAAACGAGGTGTCGCTCACT TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGTTGATAGTGGAAATCAACCGGCGAGCCAGAGAAC AATTACAAGACGACGCCACCGACTGCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAAGTTGACCCGTG GATAAAAGCCGGTGGCAGCAGGGTAATGTGTTTTTCATGCTCGGTAAATGCAACGAGGCCCTCCATAACCAT TATACGAGAAAAAGCCTTTCGCTCTCAACCCGGGAAA</p>
544	K35E/D84V mutant fused to IgG1 Fc LALAPG Mut215	<p>GCCCCACGTCCTCCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG AATTTGAAACGGAAATCAATAAATTAACAAAACTCTGAACCTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAACTTTTCATTTGCGGCCACAGTGTGATAAGCAACATCAACAGTGTATC GTCCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTATAGCCAATCTATCATCAGCACGCTTGACTGGTGGAGGATCG GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAAACTCATAGTCCCCACCC TGCCCCGACCCGGAGGCAGCAGGTGCTCTTCCGTATCTTGTGTTCCGCGAAGCCGGAAGGACACGCTT ATGATTAGCAGGACTCCCGAAGTGACGTGCTGCTGACGCTGTCGATGAGGACCCGGAGGTCAAG TTCAACTGGTATGTGATGGCTAGAAATACAAATCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTAGCGTCTTGACAGGTGCTGCACTGTTGACTGGCTCAACGGAAAGAGTATAAG TGTAAGATATCGAATAAAGCACTTGTTGTCACCTATCGAGAAAAACGATCTCAAGGCTAAGGGTCAGCCA AGAGAACCCCAAGTCTACACTCTGCCCTAGCCGACGAGCTTACGAAAAAACGAGGTGTCGCTCACT TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGTTGATAGTGGAAATCAACCGGCGAGCCAGAGAAC AATTACAAGACGACGCCACCGACTGCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAAGTTGACCCGTG GATAAAAGCCGGTGGCAGCAGGGTAATGTGTTTTTCATGCTCGGTAAATGCAACGAGGCCCTCCATAACCAT TATACGAGAAAAAGCCTTTCGCTCTCAACCCGGGAAA</p>

545	IL2-115 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAACCTATACGTGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAAATGGTATGTCGATGGCTAGAAAGTACAAATGCAAAAGACTAAACCCCGCGAAACAGTACAAT TCGACATACAGAGTAGTGAGCGTCTTGACGGTCTGCACGTTGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAACGATCTCCAAGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGACGAGGCGCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA
546	IL2-109 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAACCTCATACTGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAAATGGTATGTCGATGGCTAGAAAGTACAAATGCAAAAGACTAAACCCCGCGAAACAGTACAAT TCGACATACAGAGTAGTGAGCGTCTTGACGGTCTGCACGTTGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAACGATCTCCAAGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGCAAGAGGCGCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA

547	IL2-113 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAACTCATACGTGCCACCC TGCCCGCACCGGAGGACGAGGTGCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAA TCGACATACAGAGTAGTGAGCGCTTTCAGGTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCGGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
548	IL2-120 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAACTCATACGTGCCACCC TGCCCGCACCGGAGGACGAGGTGCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAA TCGACATACAGAGTAGTGAGCGCTTTCAGGTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTTGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCGGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

549	R38Q/D84V mutant fused to IgG1 Fc LALAPG Mut215	<p>GCCCCACGTCCTCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCATCTCTCTTCGACCTTTCAGATG</p> <p>AATTTGAAACGGAAATCAATAAATACAAAAATCCTAAACTTACTCAGATGCTCAGGTTTAAGTTTTATATG</p> <p>CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC</p> <p>TTGAATCTTGCTCCGTCCAAAAACCTTTTCATTTGCGGCCACGAGTGTGATAAGCAACATCAACGCTGATC</p> <p>GTCTGGAACCTGAAAGGAAGCGAAACGACAGCTTTATGTCGAATATGACAGACGAAACTGCGACAAATCGTT</p> <p>GAAITTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCATCAGCAGCTTGACTGGTGGAGGATCG</p> <p>GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAAATCATATGCTGCCACCC</p> <p>TGCCCCGACCCGGAGGCAGCAGGTGGTCTTCCGTTATCTTGTGTTCCGCGAAGCCGGAAGGACACGCTT</p> <p>ATGATTAGCAGGACTCCCGAAGTGACGTGCGTGTGTCGACGTGTGCGATGAGGACCCGGAGGTCAAG</p> <p>TTCAACTGGTATGTGATGGCTAGAAATACAAATCAAAAGACTAAACCCCGCAAGAACAGTACAAAT</p> <p>TCGACATACAGAGTAGTAGCGTCTTGACAGGTGTGCGACGTTGACTGGCTCAACCGAAGAGGATATAAG</p> <p>TGTAAAGTATCGAATAAAGCACTTGGTGCACCTATCAGAAAAACGATCTCAAGGCTAAGGTCAGCCA</p> <p>AGAGAACCCCAAGTCTACACTCTGCCCTAGCCGACGAGCTTACGAAAAAACGAGGTGTGCTGCTCACT</p> <p>TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGTTGATAGTGGGAATCAACCGGCGAGCCAGAGAAC</p> <p>AAATTACAAGACGACGCCACGAGTGTGGATTCCGATGGGAGCTTTTCTTGTACTCAAAAGTTGACCCGTG</p> <p>GATAAAAGCCGGTGGCAGCAGGGTAAATGTGTTTTTCATGCTCGGTAATGCAACGAGGCCCTCCATAACCAT</p> <p>TATACGAGAAAAAGCCTTTCGCTCTCAACCCGGGAAA</p>
550	IL2-116 fused to IgG1 Fc LALAPG Mut215	<p>GCCCCACGTCCTCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCATCTCTCTTCGACCTTTCAGATG</p> <p>AATTTGAAACGGAAATCAATAAATACAAAAATCCTAAACTTACTCAGATGCTCAGGTTTAAGTTTTATATG</p> <p>CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC</p> <p>TTGAATCTTGCTCCGTCCAAAAACCTTTTCATTTGCGGCCACGAGTGTGATAAGCAACATCAACGCTGAGC</p> <p>GTCTGGAACCTGAAAGGAAGCGAAACGACAGCTTTATGTCGAATATGACAGACGAAACTGCGACAAATCGTT</p> <p>GAAITTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCATCAGCAGCTTGACTGGTGGAGGATCG</p> <p>GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAAATCATATGCTGCCACCC</p> <p>TGCCCCGACCCGGAGGCAGCAGGTGGTCTTCCGTTATCTTGTGTTCCGCGAAGCCGGAAGGACACGCTT</p> <p>ATGATTAGCAGGACTCCCGAAGTGACGTGCGTGTGTCGACGTGTGCGATGAGGACCCGGAGGTCAAG</p> <p>TTCAACTGGTATGTGATGGCTAGAAATACAAATCAAAAGACTAAACCCCGCAAGAACAGTACAAAT</p> <p>TCGACATACAGAGTAGTAGCGTCTTGACAGGTGTGCGACGTTGACTGGCTCAACCGAAGAGGATATAAG</p> <p>TGTAAAGTATCGAATAAAGCACTTGGTGCACCTATCAGAAAAACGATCTCAAGGCTAAGGTCAGCCA</p> <p>AGAGAACCCCAAGTCTACACTCTGCCCTAGCCGACGAGCTTACGAAAAAACGAGGTGTGCTGCTCACT</p> <p>TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGTTGATAGTGGGAATCAACCGGCGAGCCAGAGAAC</p> <p>AAATTACAAGACGACGCCACGAGTGTGGATTCCGATGGGAGCTTTTCTTGTACTCAAAAGTTGACCCGTG</p> <p>GATAAAAGCCGGTGGCAGCAGGGTAAATGTGTTTTTCATGCTCGGTAATGCAACGAGGCCCTCCATAACCAT</p> <p>TATACGAGAAAAAGCCTTTCGCTCTCAACCCGGGAAA</p>

551	IL2-088 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACAGACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTATACGTGCCCCACC TGCCCCGACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAA TCGACATACAGAGTAGTGAGCGTCTTGACGCTGCTGACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGTGGAACTCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
552	IL2-097 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAACGAACTGCGACAACTCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACTGCCCCACC TGCCCCGACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCGTCTGATGACGCTGCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAA TCGACATACAGAGTAGTGAGCGTCTTGACGCTTCTGACGAAACGATCTCAAGGCTAAGGTCAGCCA TGTAAGTATCGAATAAGGCACTTGGTGCACCTATCGAGAAAAAGTCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGTGGAACTCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

553	R38N/H16L mutein fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGTTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTGCGCATGAGGACCGGAGGTCAAG TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAT TCGACATACAGAGTAGTGAGCGTCTTGACGTTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACGATCTCCAAGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATATGACGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
554	IL2-098 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTGCGCATGAGGACCGGAGGTCAAG TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAT TCGACATACAGAGTAGTGAGCGTCTTGACGTTGCTGCACGTTGACTGGCTCAACGGAAGGAGTATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAAGTCTCCAAGGTAAAGGTGAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATATGCAAGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

555	IL2-100 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAATCTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAATCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAGAACAGTACAA TCGACATACAGAGTAGTGAGCGTCTTGACGCTGCTGACGTTGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTAATCAAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGACGAGGCGCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA
556	IL2-090 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAATCTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAAATCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGTCGATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACATAAATCCCGCGAAGAACAGTACAA TCGACATACAGAGTAGTGAGCGTCTTGACGCTGCTGACGTTGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTAATCAAAAGTTGACCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGCAAGAGGCGCTCCATAACCAT TATACGCAGAAAAGCCTTTCGCTCTCACCCGGGAAA

557	IL2-092 fused to IgG1 Fc LALAPG Mut215	<p>GCCCCACGTCCTCCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCATCTCTCTTCGACCTTCAGATG</p> <p>AATTTGAAACGGAAATCAATAAATACAAAAATCCTAAACTTACTAGAAATGCTCACGAAGAAGTTTTTATATG</p> <p>CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACCTTAAACCACTTGAGGAAGCC</p> <p>TTGAATCTTGCTCCGTCCAAAAACCTTTTCATTTGCGGCCACAGATCTGATAAGCAACATCAACAGTGTATC</p> <p>GTCTGGAACCTGAAAGGAAGCGAAACGACAGCTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT</p> <p>GAAATTTCTCAATTCGATGGATCACTTTTATAGCCAATATCATCATCAGCAGCTTGACTGGTGGAGGATCG</p> <p>GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAACTCATAGTCCCCACCC</p> <p>TGCCCCGACCCGGAGGCAGCAGGTGGTCTTCCGTATCTTGTGTTCCGCGAAGCCGGAAGGACGACGCTT</p> <p>ATGATTAGCAGGACTCCCGAAGTGACGTGCGTCTGATGCGACGTGTCGATGAGGACCCGGAGGTCAAG</p> <p>TTCAACTGGTATGTGATGGCTAGAAATACAAATCAAAAGACTAAACCCCGCAAGAACAGTACAAAT</p> <p>TCGACATACAGAGTAGTAGCGTCTTGACAGGTGCTGCACTGTTGACTGGCTCAACGGAAAGAGTATAAG</p> <p>TGTAAAGTATCGAATAAAGCACTTGGTGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGGTCAGCCA</p> <p>AGAGAAACCCCAAGTCTACACTCTGCCCTAGCCGCGACGAGCTTACGAAAAAACGAGGTGTCGCTCACT</p> <p>TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGTTGTAGAGTGGGAATCAACCGGCGAGCCAGAGAAC</p> <p>AAATTACAAGACGACGCCACGATGCTGGATTCCGATGGGAGCTTTTTCTTGTACTCTCAAAGTTGACCCGTG</p> <p>GATAAAAGCCGGTGGCAGCAGGGTAAATGTGTTTTCTCATGCTCGGTAATGCAACGAGGCCCTCCATAACCAT</p> <p>TATACGAGAAAAAGCCTTTCGCTCTCAACCCGGGAAA</p>
558	IL2-110 fused to IgG1 Fc LALAPG Mut215	<p>GCCCCACGTCCTCCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCATCTCTCTTCGACCTTCAGATG</p> <p>AATTTGAAACGGAAATCAATAAATACAAAAATCCTAAACTTACTAGAAATGCTCACGAGAAGTTTTTATATG</p> <p>CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACCTTAAACCACTTGAGGAAGCC</p> <p>TTGAATCTTGCTCCGTCCAAAAACCTTTTCATTTGCGGCCACAGATCTGATAAGCAACATCAACAGTGTATC</p> <p>GTCTGGAACCTGAAAGGAAGCGAAACGACAGCTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT</p> <p>GAAATTTCTCAATTCGATGGATCACTTTTATAGCCAATCTCATCATCAGCAGCTTGACTGGTGGAGGATCG</p> <p>GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGATAAAACTCATAGTCCCCACCC</p> <p>TGCCCCGACCCGGAGGCAGCAGGTGGTCTTCCGTATCTTGTGTTCCGCGAAGCCGGAAGGACGACGCTT</p> <p>ATGATTAGCAGGACTCCCGAAGTGACGTGCGTCTGATGCGACGTGTCGATGAGGACCCGGAGGTCAAG</p> <p>TTCAACTGGTATGTGATGGCTAGAAATACAAATCAAAAGACTAAACCCCGCAAGAACAGTACAAAT</p> <p>TCGACATACAGAGTAGTAGCGTCTTGACAGGTGCTGCACTGTTGACTGGCTCAACGGAAAGAGTATAAG</p> <p>TGTAAAGTATCGAATAAAGCACTTGGTGCACCTATCGAGAAAAACGATCTCAAGGCTAAGGGTCAGCCA</p> <p>AGAGAAACCCCAAGTCTACACTCTGCCCTAGCCGCGACGAGCTTACGAAAAAACGAGGTGTCGCTCACT</p> <p>TGTTTGGTGAAGGGTTCTATCCGAGCGATATTGTTGTAGAGTGGGAATCAACCGGCGAGCCAGAGAAC</p> <p>AAATTACAAGACGACGCCACGATGCTGGATTCCGATGGGAGCTTTTTCTTGTACTCTCAAAGTTGACCCGTG</p> <p>GATAAAAGCCGGTGGCAGCAGGGTAAATGTGTTTTCTCATGCTCGGTAATGCAACGAGGCCCTCCATAACCAT</p> <p>TATACGAGAAAAAGCCTTTCGCTCTCAACCCGGGAAA</p>

[illegible]

561	IL2-101 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGACGAGGTGCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGAGGACCGGAGGTCAAG TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAT TCGACATACAGAGTAGTGAGCGTCTTGACGCTGCTGACGTTGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGACAGAAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
562	IL2-102 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGACGAGGTGCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGAGGACCGGAGGTCAAG TTCAAATGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAT TCGACATACAGAGTAGTGAGCGTCTTGACGCTTCTGACGAAACGATCTCAAGGCTAAGGTCAGCCA TGTAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAAGGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACGAGGTCTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGACGCCAGAGAAC AATTACAAGACGACGCCACGAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

563	IL2-103 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGGAACATCAACGTGATC GTCTTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGCTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTCGACGTGCGCATGAGGACCGGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACGCTGCTGCACGTTGACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACGATCTCCAAGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCCAGGTGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
564	IL2-104 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACGTGCCACCC TGCCCGCACCCGAGGAGCAGAGTGGTCTTCCGTATCTTGTTCGCGGAAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGTAGTCGACGTTGACTGCGATGAGGACCCGAGGTCAAG TTCAACTGGTATGTCGATGGCGTAGAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACGCTTCTGCGACCTATCGAGAAAAAGGATCTCCAAGGTAAAGGTGAGGATAG TGTAAGTATCGAATAAGGCACTTGGTGCACCTATCGAGAAAAAGGATCTCCAAGGTAAAGGTGAGGATAG AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCCAGGTGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTATGTCAGGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

565	IL2-114 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGCAGAAATTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTACGACGCTTACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTATACGTGCCCCACC TGCCCCGACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGAGGACCGGAGGTCGAG TTCAAATGTTATGTCGATGGCTAGAAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACGCTGCTGACGCTTACTGGCTCAACGGAAGAGGATATAAG TGTAAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAACGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCCAGGTGTCGCTCACT TGTTTGGTGAAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGACGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA
566	IL2-117 fused to IgG1 Fc LALAPG Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGCAGAAATTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGATAAAACTCATACTGCCCCACC TGCCCCGACCCGAGGAGCAGAGTGGTCTTCCGTATTTCTGTTCCGCCGAAGCCGAGGACACGCTT ATGATTAGCAGGACTCCGAAGTGACGTGCTGATGACGCTGAGTCCGATGAGGACCCGAGGTCAG TTCAAATGTTATGTCGATGGCTAGAAAGTACAAATGCAAAAGACTAAACCCCGCAAGAACAGTACAAAT TCGACATACAGAGTAGTGAGCGTCTTGACGCTTACTGCAAGAAACGATCTCAAGGCTAAGGTCAGCCA TGTAAGTATCGAATAAGGCACCTTGGTGCACCTATCGAGAAAAAGGATCTCAAGGCTAAGGTCAGCCA AGAGAAACCCCAAGTCTACACTCTGCCCTTAGCCGACGAGCTTACGAAAAACCCAGGTGTCGCTCACT TGTTTGGTGAAGGTTTCTATCCGAGCGATATTGTTGGTAGAGTGGAAATCCAAACGGGAGCCAGAGAAC AATTACAAGACGACGCCACAGTCTGGATTCCGATGGAGCTTTTCTTGTACTCAAAGTTGACCCGTG GATAAAAGCCGTTGGCAGCAGGTAATGTGTTTTCATGCTCGGTAATGCAAGAGGCCCTCCATAACCAT TATACGCAGAAAAAGCCTTTCGCTCTCACCCGGGAAA

304

569	Stabilized IL-2 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGTGAAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCCGTTCTGGATTCAGACGGATCTTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
570	IL2-037 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGGATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGTGAAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

571	IL2-062 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAAATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAGTATGGCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTAGTTGTGTGATGCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
572	IL2-118 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCTTGCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAGTATGGCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACCTGTAGTTGTGTGATGCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGTCGAAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

573	IL2-035 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAACCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACATTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
574	IL2-073 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTCAATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACATTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

575	IL2-077 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATACGTAAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTACAGCGGATCTTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
576	IL2-043 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTCAATTTGCGGCCACGAGATCTGATAAGCCTGATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGTCGAGTGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

577	IL2-036 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAGCATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATGCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGTGAAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
578	IL2-068 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTGATGCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGTGAAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

579	IL2-106 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAACTGCTCACGTTTAAAGTTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGTGAAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTCTGAGTTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
580	IL2-107 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAACTGCTCACGTTTAAAGTTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGCACTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACCTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAGTGCATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTCTGAGTTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

581	IL2-119 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCTGTCTTCTTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAACTGTCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCCTTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTTGTTTGTAAAGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTCTGAGTTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
582	K35E/D84V mutein fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAACTGTCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTCAATTTGCGGCCACGAGTGTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCCTTGC CCTCCGTGCCCTGCACTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTTAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCCTTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTTGTTTGTAAAGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTCTGAGTTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

583	IL2-115 fused to IgG4 Fc S228P	<p>GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTGTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCAGCACGCTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCTACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA</p>
584	IL2-109 fused to IgG4 Fc S228P	<p>GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTGTGAACGGAAATCAATAATTACAAAAATCCTAAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCTACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGTCGAGTGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA</p>

585	IL2-113 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
586	IL2-120 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

587	R38Q/D84V mutein fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCAGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCTCCGTCCAAAACTTTTCATTTGCGGCCACGAGTGTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATATTGCTGTGAAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
588	IL2-116 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCAGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATATTGCTGTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

589	IL2-088 fused to IgG4 Fc S228P	<p>GCCCCTACGTCTCTCAACTAAAAAGACGCAACTTCAGCTTTGAGCAATCTTCTTCTCGACCTTTCAGATG ATTTTGAAACGGAAATCAATAATTAACAAAATCCTAAACCTTAACATAGCTACAGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTTGGAGGAGGAACTTAAACCACTTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTCATTTGCGGCCACAGATCTGATAAGCAACATCAACACGTGATC GTCCTGGAACTGAAAGGAAACGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCTATCATCAGCACTGCTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGTGGGTGGAGGAGGATCCGAAAGTAAAGTATGGCCCTCTCTTGC CCTCCGTGCCCTGCACCTGAGTTCTCGCGGGTCTCTCAGTGTTTTTGTCTTCCACCCAAAACCTTAAAGAC ACCTTATGATCTCTCGAAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCTCACAGGAAGATCCGGAG GTTCAAATTTAAATGGTACGTGATGGTGTGAAGTGCATAAATCGCAAGACATAAGCCGAGAGAGGAACAG TTCAAATTCACCTTATCGCGTGGTTTTCACTCTTACAGTCTTGACCAAGATTTGGCTTAAACGGAAAAGGAA TATAAGTGCAAGGTAAATAAAGGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCCAAGTCTACACGCTTCTCTCTCAGGAGGAGATGACCAAAAAACCCAGGTAAGT TTGACGTGTTTGGTAAAGGGGTTTTATCCCTCAGATATGCTCGAATGGGAGTCTAATGGTCAGCCT GAGAACAAATTAAGACTACGCCACCGTTCTGGATTCAGACGGATCTTTCTTCTCTTACAGCAGATTG ACGGTAGACAAAACCCCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCCAT AATCACTACACGCAGAAAATCTCTGAGCTTGCTCTTTGGGAAA</p>
590	IL2-097 fused to IgG4 Fc S228P	<p>GCCCCTACGTCTCTCAACTAAAAAGACGCAACTTCAGCTTTGAGAACCTTCTTCTCGACCTTTCAGATG ATTTTGAAACGGAAATCAATAATTAACAAAATCCTAAACCTTAACATAGCTACAGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTTGGAGGAGGAACTTAAACCACTTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTCATTTGCGGCCACAGATCTGATAAGCAACATCAACACGTGATC GTCCTGGAACTGAAAGGAAACGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTCTATCATCAGCACTGCTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGTTCGGGTGGAGGAGGATCCGAAAGTAAAGTATGGCCCTCTCTTGC CCTCCGTGCCCTGCACCTGAGTTCTCGCGGGTCTCTCAGTGTTTTTGTCTTCCACCCAAAACCTTAAAGAC ACCTTATGATCTCTCGAAACACCTGAAGTAAACCTGTGTAGTTGTGTGATCTCTCACAGGAAGATCCGGAG GTTCAAATTTAAATGGTACGTGATGGTGTGAAGTGCATAAATCGCAAGACATAAGCCGAGAGAGGAACAG TTCAAATTCACCTTATCGCGTGGTTTTCACTCTTACAGTCTTGACCAAGATTTGGCTTAAACGGAAAAGGAA TATAAGTGCAAGGTAAATAAAGGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCCAAGTCTACACGCTTCTCTCTCAGTATGCTGTGCGAATGGGAGTCTAATGGTCAGCCT TTGACGTGTTTGGTAAAGGGGTTTTATCCCTCAGATATGCTGTGCGAATGGGAGTCTAATGGTCAGCCT GAGAACAAATTAAGACTACGCCACCGTTCTGGATTCAGACGGATCTTTCTTCTCTTACAGCAGATTG ACGGTAGACAAAACCCCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCCAT AATCACTACACGCAGAAAATCTCTGAGCTTGCTCTTTGGGAAA</p>

591	R38N/H16L mutein fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGTTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACATTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
592	IL2-098 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACATTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTTAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

593	IL2-100 fused to IgG4 Fc S228P	<p>GCCCCACGTCTCTCAACTTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAACTCTAAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACCGTGAGC GTCCTGGAACCTGAAAGGAACGAAACGACAGCTTTATGTGCGAATATGCAGACGAAACTGCGACCAATCGTT GAATTTCTCAATCGATGGATCACTTTTAGCCAACTTATCATCAGCACTGCTGATGCTGGTGTGGAGGATCG GGAGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAGTAAGTATGGCCCTCCTTTCG CCTCCGTCCCTGCACCTGAGTTCTCGCGGTCTCTCAGTGTCTTTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTCGAAACACCTGAATTAACCTGTGTGTTGTGATGCTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGAGAGAGGAACAG TTCAATTTCACTTATCGGTGGTTTTAGTCTTTACAGTCTTGACCAAGATTTGGCTTAAACGGAAAAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCAAGTCTACACGCTTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGGTAAGT TTGACGTGTTTGGTAAAGGGGTTTTTATCCCTCAGATAATCTGCTGAAATGGGAGTCTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCGTTCTGGATTTACAGACGGATCTTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAAGCCCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCCAT AATCACTACACGCAGAAATCTCTGAGCTTGCTCTTGGGAAA</p>
594	IL2-090 fused to IgG4 Fc S228P	<p>GCCCCACGTCTCTCAACTTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAACTCTAAACTTACTAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACCGTGATC GTCCTGGAACCTGAAAGGAACGAAACGACAGCTTTATGTGCGAATATGCAGACGAAACTGCGACCAATCGTT GAATTTCTCAATCGATGGATCACTTTTAGCCAACTTATCATCAGCACTGCTGATGCTGGTGTGGAGGATCG GGAGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAGTAAGTATGGCCCTCCTTTCG CCTCCGTCCCTGCACCTGAGTTCTCGCGGTCTCTCAGTGTCTTTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTCGAAACACCTGAACTAACCTGTGTGTTGTTGATGCTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGAGAGAGGAACAG TTCAATTTCACTTATCGGTGGTTTTAGTCTTTACAGTCTTGACCAAGATTTGGCTTAAACGGAAAAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCAAGTCTACACGCTTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGGTAAGT TTGACGTGTTTGGTAAAGGGGTTTTTATCCCTCAGATAATGCTGTGCGAATGGGAGTCTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCGTTCTGGATTTACAGACGGATCTTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAAGCCCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCCAT AATCACTACACGCAGAAATCTCTGAGCTTGCTCTTGGGAAA</p>

595	IL2-092 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAATCCTAACTTACTAGATGCTCACGAAGAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACATTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
596	IL2-110 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAATCCTAACTTACTAGATGCTCACGCAGAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACATTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

597	IL2-Inactive fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAACTCAATAATTACAAAATCCTAACTTACTAGATGCTCAGGCAAGTTTGTATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATGGTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCGATATCAACGTGATC GTCTTGAACCTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTTCCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGAAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
598	IL2-99 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAACTCAATAATTACAAAATCCTAACTTACTAACTGCTCAGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTCAATTTGCGGCCACGAGATCTGATAAGGAAACATCAACGTGATC GTCTTGAACCTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGAAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

599	IL2-101 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTTCCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
600	IL2-102 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

601	IL2-103 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGGAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGCTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTTCCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTCTGAGTTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
602	IL2-104 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTCTGAGTTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

603	IL2-114 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAACTGCTCACGCAGAACTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTTCCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
604	IL2-117 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCACTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAACTGCTCACGCAGAACTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGCACTGAGTTCTCTCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGTCGAAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

605	IL2-108 fused to IgG4 Fc S228P	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAATCAATAATTACAAAAATCCTGAATCTACTAATCTTGGAGGAGAACTTAAACCACTTGAGGAAGCC CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGAACTTAAACCACTTGAGGAAGTA TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCAGCACGCTTACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAGTAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCCTCGCGGTCTTTCAGTGTCTTGTCTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTGTGTTGTTGTTTCCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAGCCGAGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATAATGCTGTGCGAATGGAGTCTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGTTAGACAAAAGCCGCTGGCAAGAGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTCTTGGGAAA
Exemplary IL-2-Fc Fusion Proteins (IgG4 Fc S228P/R409K)		
606	IL2 C125S fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAATCAATAATTACAAAAATCCTAAACTTACTAGAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGAACTTAAACCACTTGAGGAAGTA TTGAATCTTGTCTCAGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCAGCACGCTTGA CTGGTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAGTAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCCTCGCGGTCTTTCAGTGTCTTGTCTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTGTGTTGTTGTTTCCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAGCCGAGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATAATGCTGTGCGAATGGAGTCTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGTTAGACAAAAGCCGCTGGCAAGAGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTCTTGGGAAA

607	Stabilized IL-2 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGTCGAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
608	IL2-037 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGGATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGTCGAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

609	IL2-062 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAAATCTTCTTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTTGGAGGAGGATCCGAAAGTAAATATGAGTATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTCAGTGTCTTGTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGTGAAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
610	IL2-118 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAGTAAATATGAGTATGCCCCTCTTGC CTCCGTGCCCTGCACTGAGTTCTTCGGCGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGTGAAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

611	IL2-035 fused to IgG4 Fc S228P/R409K	<p>GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAACCAATAATTACAAAAATCCTAACTTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTATAGTATGGCCCTCCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA</p>
612	IL2-073 fused to IgG4 Fc S228P/R409K	<p>GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAACCAATAATTACAAAAATCCTAACTTACTAGAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA</p>

613	IL2-077 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATACGTAAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTTGGAGGAGGATCCGAAAAGTATAGTATGGCCCTCCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGTGAAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
614	IL2-043 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCCTGATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTTAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGTGAAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

615	IL2-036 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAGCATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTTGGAGGAGGATCCGAAAAGTAAGTATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTAGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGTGAAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCCGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
616	IL2-068 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTAAGTATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGC ACCTTATGATCTCTGAAACACCTGAAGTAACCTGTAGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGTGAAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCCGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

617	IL2-106 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAACTGCTCAGCTTTAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
618	IL2-107 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAACTGCTCAGCTTTAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTAAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

619	IL2-119 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCTGTCTTCTTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGCTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACATTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTGGAGGAGGATCCGAAAAGTATAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCCTCGCGGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCCTTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTGAGCGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
620	K35E/D84V mutein fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGCTCCGTCCAAAACTTTTCATTTGCGGCCACGAGTGTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACATTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCGCGGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCCTTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTGAGCGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

621	IL2-115 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAACTGCTCAGCTTTAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTTGGAGGAGGATCCGAAAAGTATAGTATGGCCCTCTTTCG CCTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCCTTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
622	IL2-109 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAACTTACTCAGATGCTCAGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCTTTCG CCTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACCTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCCTTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

623	IL2-113 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCAGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGAGTCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTTGGAGGAGGATCCGAAAGTAAGTATGGCCCTCCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTAGTTGTGTGATGCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCCTTCTCAGGAGGAGATGACCAAAAAACCAAGTAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGTGAAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
624	IL2-120 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCAGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAGTAAGTATGGCCCTCCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAAACACCTGAAGTAACCTGTAGTTGTGTGATGCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCCTTCTCAGGAGGAGATGACCAAAAAACCAAGTAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGTGAAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

625	R38Q/D84V mutein fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCAGCTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGCTCCGTCCAAAACTTTTCATTTGCGGCCACGAGTGTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTTGGAGGAGGATCCGAAAAGTAAATGATGAGGCTCTTTCG CCTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTGATGGTGTGAAAGTGCATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTGTATTCCTCAGATATGCTGTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTCTGAGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
626	IL2-116 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCAGCTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGCTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTAAATGATGAGGCTCTTTCG CCTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTGATGGTGTGAAAGTGCATAATGCGAAGACTTAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTGTATTCCTCAGATATGCTGTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTCTGAGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

627	IL2-088 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCACTTTCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGCAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGAGGATCG CTCCGTGCCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTCTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGGTGTTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATATGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTCTGAGATTCAGACGATCTTCTTCTCTACAGCAAAATG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
628	IL2-097 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCACTTTCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGAGGATCG CTCCGTGCCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTCTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGGTGTTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATATGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTCTGAGATTCAGACGATCTTCTTCTCTACAGCAAAATG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

629	R38N/H16L mutein fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGTTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCACTTTCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTGGAGGAGGATCCGAAAGTAAATGATATGGCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTGTATTCCTCAGATATGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTCTGAGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
630	IL2-098 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCACTTTCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGAAAGTAAATGATATGGCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTGTATTCCTCAGATATGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTCTGAGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

631	IL2-100 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTAACTTAACTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCACTTTCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGAGGCTCTTGC CTCCGTGCCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGGTGTTTTCAGTCTTACAGTCTTGCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATATGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAACAGACTACGCCACCCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
632	IL2-090 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTAACTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCACTTTCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAAGCACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGAGGCTCTTGC CTCCGTGCCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGGTGTTTTCAGTCTTACAGTCTTGCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATATGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAACAGACTACGCCACCCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

633	IL2-092 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAACTGCTCACGAAGAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTTGGAGGAGGATCCGAAAGTAAATGATATGGCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGC ACCTTATGATCTCTGAACACCTGAAGTAACTGTAGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGGTGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGTGAAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
634	IL2-110 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAACTGCTCACGCAGAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAGTAAATGATATGGCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGC ACCTTATGATCTCTGAAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGGTGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGCTGTGAAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTGAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

635	IL2-Inactive fused to IgG4 Fc S228P/R409K	<p>GCCCCCTACGTCTCTCTCAAACTAAAAAGACGCAACTTTCAGCTTTGAGCATCTTCTTCTCGACCTTTCAGATG ATTTTGAAACGGGAATCAATAATTAACAAAACTCTAACTTACTAGAACTGCTCAGCGCAAAAGTTTGTCTATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTTGGAGGAGGAACCTTAAACCACTTTGAGGAAGCC TTGAATGGTGTCTCCGTCCAAAAACCTTTCATTTTGGCCACAGATCTGATAAGCGATATCAACCGTGTATC GTCCTGGAACCTGAAAGGAAGCGAAACGACAGCTTTATGTGCGAATATGCAGACGAAACTGCGACCAATCGTT GAATTTCTCAATCGATGGATCACTTTTAGCCAACTTATCATCAGCACTAGCTGCTGTTGGAGGATCG GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAGTAAGTATGGCCCTCTTTGC CCTCCGTGCCCTGCACCTGAGTTCTCGCGGTCTCTCAGTGTCTTTTGTTCACCCCAAAACCTTAAAGAC ACCTTATGATCTCTCGAAACACCTGAATTAACCTGTGTGTTGTGTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGACGAGAGGAACAG TTCAATTTCACTTATCGGTGGTTTTTTCAGTCTTTACAGTCTTGACCAAGATTTGGCTTAAACGGAAAAAGGA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAAACCATAAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCAAGTCTACACGCTTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGGTAAAGT TTGACGTGTTTGGTAAAGGGGTTTTTATCCCTCAGATAATGCTGCAATGGGAGTCTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCGTTCTGGATTTGGAATCAGCGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCCAT AATCACTACACGCAGAAATCTCTGAGCTTGCTCTTGGGAAA</p>
636	IL2-99 fused to IgG4 Fc S228P/R409K	<p>GCCCCCTACGTCTCTCTCAAACTAAAAAGACGCAACTTTCAGCTTTGAGCATCTTCTTCTCGACCTTTCAGATG ATTTTGAAACGGGAATCAATAATTAACAAAACTCTAACTTACTAACTGCTCAGCTTTAAAGTTTATATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTTGGAGGAGGAACCTTAAACCACTTTGAGGAAGCC TTGAATCTTTGCTCCGTCCAAAAACCTTTCATTTTGGCCACAGATCTGATAAGGAACATCAACCGTGTATC GTCCTGGAACCTGAAAGGAAGCGAAACGACAGCTTTATGTGCGAATATGCAGACGAAACTGCGACCAATCGTT GAATTTCTCAATCGATGGATCACTTTTAGCCAACTTATCATCAGCACTGCTGCTGTTGGTGGAGGATCG GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAGTAAGTATGGCCCTCTTTGC CCTCCGTGCCCTGCACCTGAGTTCTCTCGCGGTCTCTCAGTGTCTTTTGTTCACCCCAAAACCTTAAAGAC ACCTTATGATCTCTCGAAACACCTGAAGTAAACCTGTGTGTTGTGTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGACGAGAGGAACAG TTCAATTTCACTTATCGGTGGTTTTTTCAGTCTTTACAGTCTTGACCAAGATTTGGCTTAAACGGAAAAAGGA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAAACCATAAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCAAGTCTACACGCTTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGGTAAAGT TTGACGTGTTTGGTAAAGGGGTTTTTATCCCTCAGATAATGCTGCAATGGGAGTCTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCGTTCTGGATTTGGAATCAGCGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCCAT AATCACTACACGCAGAAATCTCTGAGCTTGCTCTTGGGAAA</p>

637	IL2-101 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAACGGGAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTGGAGGAGGATCCGAAAAGTAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTTCCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTAGTTGTGTGATGCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
638	IL2-102 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGGAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGAAAAGTAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGC ACCTTATGATCTCTGAAACACCTGAAGTAACCTGTAGTTGTGTGATGCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

639	IL2-103 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGGAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTTGGAGGAGGATCCGAAAAGTAAATGATGAGGCTCTTTCG CCTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
640	IL2-104 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTAAATGATGAGGCTCTTTCG CCTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATATTGCTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

641	IL2-114 fused to IgG4 Fc S228P/R409K	<p>GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAACTGCTCAGCGAGAACTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTAGTTGTGTGATGCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGTCGAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA</p>
642	IL2-117 fused to IgG4 Fc S228P/R409K	<p>GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAACTGCTCAGCGAGAACTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACCTGTAGTTGTGTGATGCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGAGCCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGCTGTCGAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA</p>

643	IL2-108 fused to IgG4 Fc S228P/R409K	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAATCTGAGGAGGAACTTAAACCACTTGAGGAAGCC CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGTA TTGAAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTAAGTATGGCCCTCCTTGC CTCCGTGCCCTGCACCTGAGTTCTTCCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTGTAGTTGTGTGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATAATTGCTGTGCGAATGGAGTCTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTTCAGACGGATCTTTCTTCTCTACAGCAAAATTG ACGTTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTCTTGGGAAA
Exemplary IL-2-Fc Fusion Proteins (IgG4 Fc S228P Mut215)		
644	IL2 C125S fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAAACTTACTAGAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGTA TTGAAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTAAGTATGGCCCTCCTTGC CTCCGTGCCCTGCACCTGAGTTCTTCCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTGTAGTTGTGTGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAGCCGAGAGAGGAAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTACAGTCTTGCCACCAAGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATAATTGCTGTGCGAATGGAGTCTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTTCAGACGGATCTTTCTTCTCTACAGCAGATTG ACGTTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTCTTGGGAAA

645	Stabilized IL-2 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTCAGTCTTGCACGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTTGTTTGTAAAGGGTGTATTCCTCAGATAATGTTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTCTGAGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
646	IL2-037 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGGATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTCAGTCTTGCACGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTTGTTTGTAAAGGGTGTATTCCTCAGATAATGTTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTCTGAGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

647	IL2-062 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAAATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCTCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTATAGTATGGCCCTCCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAATGCGAATAATGCGAAGACTAAAGCCGAGAGAGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
648	IL2-118 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCTCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATAATGCAGACGAACTGCGAACAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAATGCGAATAATGCGAAGACTAAAGCCGAGAGAGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

649	IL2-035 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAACCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
650	IL2-073 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGAAAAGTAAATATGAGTATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTCTTCTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

651	IL2-077 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATACGTAAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAGTAAATGATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
652	IL2-043 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCCTGATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAGTAAATGATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

653	IL2-036 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAGCATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTCAGTCTTCGACGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTCAGACGGATCTTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
654	IL2-068 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTCAGTGTCTTCTTCTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTTAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTCAGTCTTCGACGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTCTTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

655	IL2-106 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAACTGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAGTATGGCCCTCCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTAGTTGTGTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTGCACGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
656	IL2-107 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAACTGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAGTATGGCCCTCCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACCTGTAGTTGTGTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTGCACGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

657	IL2-119 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCTGTCTTCTTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGTGGAGGATCTGGAGGAGGAGATCGGTGGAGGAGGATCCGAAAAGTAAATGATGAGGCTCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTGTATCCCTCAGATAATTTGTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTCTGAGTTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
658	K35E/D84V mutein fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGTGTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCTCTGC CTCCGTGCCCTGACCTGAGTTCTCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAAACACCTGAAGTAACTGTGTGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTTAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTGTATCCCTCAGATAATTTGTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTCTGAGTTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

659	IL2-115 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACATTTTAGCCAACTATCATCAGCACGCTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATGATATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
660	IL2-109 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAACTTACTCAGATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACATTTTAGCCAACTATATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATGATATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

661	IL2-113 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATGATGAGGCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTTCCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
662	IL2-120 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATGATGAGGCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

663	R38Q/D84V mutein fused to IgG4 Fc S228P Mut215	<p>GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAATCCTAACTTACTCAGATGCTCAGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGTGTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTGGAGGAGGATCCGAAAAGTATGATATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATAATGTTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA</p>
664	IL2-116 fused to IgG4 Fc S228P Mut215	<p>GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAATCCTAACTTACTCAGATGCTCAGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGCACTGAGTTCTTCGGCGTCTTTCAGTGTCTTCTTCTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTTAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATAATGTTGTGCAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA</p>

665	IL2-088 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTTGTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
666	IL2-097 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGAAGACTAAAGCCGAGAGGATCG GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTTGTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

667	R38N/H16L mutein fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGTTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGCTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTACAGCGGATCTTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
668	IL2-098 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGCTCCGTCCAAAACTTTCAATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CCTCCGTGCCCTGCACTGAGTTCTCTGGCGGTCCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTTAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAGTTGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

669	IL2-100 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAATCTTACTAATCTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTTCCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
670	IL2-090 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGAAGACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTCGCGGTCTTTCAGTGTCTTCTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTTAAGCCGAGAGAGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

671	IL2-092 fused to IgG4 Fc S228P Mut215	<p>GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGAAGAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATGATGAGGCTCTTGGC CTCCGTGCCCTGACCTGAGTTCTCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGAATAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA</p>
672	IL2-110 fused to IgG4 Fc S228P Mut215	<p>GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGCAGAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATAATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAACTATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATGATGAGGCTCTTGGC CTCCGTGCCCTGACCTGAGTTCTCGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGAATAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA</p>

673	IL2-Inactive fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGGCAAGTTTGTATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATGGTGTCTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCGATATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGACAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTTCAATTTCCACTTATCGGTGTTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
674	IL2-99 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCTCCGTCCAAAACTTTCAATTTGCGGCCACGAGATCTGATAAGGAAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCGAAGACTAAAGCCGAGAGAACAG GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAACAG TTTCAATTTCCACTTATCGGTGTTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

675	IL2-101 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGAACCTTCTTCTCGACCTTTCAGATG ATTTTGAACGGGAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTATAGTATGGCCCTCCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
676	IL2-102 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTTCAGATG ATTTTGAACGGGAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

677	IL2-103 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGGAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTATGATATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTCAGTCTTGCACGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
678	IL2-104 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACCTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTCAGTCTTGCACGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAGTTGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTACAGCGGATCTTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

679	IL2-114 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAATCCTAACTTACTAGAAATGCTCAGCAGAAATTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTATAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTCAGTCTTGCACGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
680	IL2-117 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAATCCTAACTTACTAGAAATGCTCAGCAGAAATTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTTGTTTCCACCCAAACCTTAAAGAC GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTCAGTCTTGCACGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTTCTTCTCTACAGCAGATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

681	IL2-108 fused to IgG4 Fc S228P Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACATTTTAGCCAATCTATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCCAAACTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAATTGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGTCTTTCAGTCTTTCAGTCTTTCAGT TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAACACAGGTAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATAATTGTTGTCGAAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTTCAGACGGATCTTCTTCTCTACAGCAGATTG ACGTTAGACAAAAGCCGCTGGCAAGAGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGTTGTCTCTTGGGAAA
Exemplary IL-2-Fc Fusion Proteins (IgG4 Fc S228P/R409K Mut215)		
682	IL2 C125S fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAAACTTACTAGAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGTA TTGAAATCTTGTCCGTCCAAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACATTTTAGCCAATCTATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCCAAACTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAATTGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGTCTTTCAGTCTTTCAGTCTTTCAGT TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAACACAGGTAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATAATTGTTGTCGAAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCCGTTCTGGATTTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGTTAGACAAAAGCCGCTGGCAAGAGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGTTGTCTCTTGGGAAA

683	Stabilized IL-2 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTAAATGATATGGCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
684	IL2-037 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGGATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATGATATGGCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

685	IL2-062 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGAAATCTTCTTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTATAGTATGGCCCTCCTTGC CTCCGTGCCCTGCACCTGAGTTCTTCGGCGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTAGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGGTGTTTTCAGTCTTCAGTCTTGCACGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCGTTCTGGATTACAGCGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
686	IL2-118 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCCTTGC CTCCGTGCCCTGCACCTGAGTTCTTCGGCGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTAGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAGTGCATAATGCGAAGACTTAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGGTGTTTTCAGTCTTCAGTCTTGCACGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

687	IL2-035 fused to IgG4 Fc S228P/R409K Mut215	<p>GCCCCTACGTCCTCCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCATCTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAACCAATAATTACAAAACTCTAAACTTACTAGAAATGCTCACGTTTAAAGTTTATATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAAGCC TTGAATCTTGTCCTCGTCCAAAAACCTTTTCATTTGCGGCCACAGATCTTGATAAGCAACATCAACGTTGATC GTCCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGGAATATGACAGACGAAACTCGACCAATCGTT GAAATTTCTCAATTCGATGGATCACTTTTATAGCCAACTATCATCATCAGCAGCTTGATGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCGGAAGTAAGTATGCGCCCTCCTTGCG CCTCCGTGCCCTGCACCTGAGTTCCTCGCGGTCTTCAGTGTCTTTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTCGAAACACCTGGAAGTAACTGTGTAGTTGTTGATGTCCTACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCGATGGTGTGGAAGTGCAATAATCGGAAGCTAAGCCGAGAGAGGAACAG TTCAATTCACCTTATCGGTGGTTCCTCAGTCTTCAGGTCTTGACGTGGATTTGGCTTAAACGGAAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCAAGTCTACACGCTTCCTCCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGGTAAAGGGGTTTTATCCCTCAGATATGTTGTCGAATGGGAGTCTAATGGTCAGCCT GAGAACAATTACAAGACTACGCCACCGTCTTGGAATTCAGATCAGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAAATCTCTGAGCTTGCTCTTGGGAAA</p>
688	IL2-073 fused to IgG4 Fc S228P/R409K Mut215	<p>GCCCCTACGTCCTCCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCATCTCTTCTCGACCTTCAGATG ATTTTGAAACGGAACTCAATAATTACAAAACTCTAAACTTACTAGAAATGCTCACGTTTAAAGTTTATATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAAGCC TTGAATCTTGTCCTCGTCCAAAAACCTTTTCATTTGCGGCCACAGATCTTGATAAGCAACATCAACGTTGATC GTCCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGGAATATGACAGACGAAACTCGACCAATCGTT GAAATTTCTCAATTCGATGGATCACTTTTATAGCCAACTATCATCATCAGCAGCTTGATGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCGGAAGTAAGTATGCGCCCTCCTTGCG CCTCCGTGCCCTGCACCTGAGTTCCTCGCGGTCTTCAGTGTCTTTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTCGAAACACCTGGAAGTAACTGTGTAGTTGTTGATGTCCTACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCGATGGTGTGGAAGTGCAATAATCGGAAGCTAAGCCGAGAGAGGAACAG TTCAATTCACCTTATCGGTGGTTCCTCAGTCTTCAGTCTTGACGTGGATTTGGCTTAAACGGAAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCAAGTCTACACGCTTCCTCCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGGTAAAGGGGTTTTATCCCTCAGATATGTTGTCGAATGGGAGTCTAATGGTCAGCCT GAGAACAATTACAAGACTACGCCACCGTCTTGGAATTCAGATCAGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAAATCTCTGAGCTTGCTCTTGGGAAA</p>

689	IL2-077 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGCTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATACGTAAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTTGGAGGAGGATCCGAAAGTAAATGATATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGGTGTTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
690	IL2-043 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGCTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCCTGATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAGTAAATGATATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGGTGTTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

691	IL2-036 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAGCATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTTGGAGGAGGATCCGAAAAGTATAGTATGGCCCTCCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTAGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTGAGATTCAGACGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
692	IL2-068 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTCGAAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCCTTGC CTCCGTGCCCTGCACTGAGTTCTTCGGCGTCTTTCAGTGTCTTCTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACCTGTAGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTGAGATTCAGACGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

693	IL2-106 fused to IgG4 Fc S228P/R409K Mut215	<p>GCCCCTACGTCCTCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCACTCTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTAACAAAACTCTGAACCTTACTAGAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACCTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCTCGTCCAAAAACCTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTTGATC GTCCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGAATATGACAGACGAAACTCGACCAATCGTT GAAITTTCTCAATTCGATGGATCACTTTTATAGCCAACTATCATCATCAGCAGCTTGATGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCGGAAGTAAGTATGCGCCCTCTTTGC CCTCCGTGCCCTGCACCTGAGTTCCTCGCGGTCTTTCAGTGTCTTTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTCGAAACACCTGGAATAACTGTGTAGTTGTTGATGTCCTCACAGGAAGATCCGGAG GTTCAATTTAAITGGTACGTCGATGGTGTGGAAGTGCAATAATGCGAAGACTAAGCCGAGAGAGGAACAG TTCAATTCACCTTATCGGTGGTTCCTGATCTTTCAGTCTTTCAGCTTTCGACGTGGATTTGGCTTAAACGGAAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCAAGTCTACACGCTTCCCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAGT TTGACGTGTTTGGTAAAGGGGTTTTATCCCTCAGATATGTTGTCGAATGGGAGTCTAATGGTCAGCCT GAGAACTAATAAAGACTACGCCACCGTCTTGGAATTCAGGATCAGGATCTTTCTTCTCTACAGCAAAATG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAAATCTCTGAGCTGTCTCTTGGGAAA</p>
694	IL2-107 fused to IgG4 Fc S228P/R409K Mut215	<p>GCCCCTACGTCCTCTCAAACTAAAAAGACGCAACTTCAGCTTGAGAACTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTAACAAAACTCTGAACCTTACTAGAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACCTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCTCGTCCAAAAACCTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTTGATC GTCCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGAATATGACAGACGAAACTCGACCAATCGTT GAAITTTCTCAATTCGATGGATCACTTTTATAGCCAACTATCATCATCAGCAGCTTGATGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCGGAAGTAAGTATGCGCCCTCTTTGC CCTCCGTGCCCTGCACCTGAGTTCCTCGCGGTCTTTCAGTGTCTTTGTTTCCACCCCAACCTTAAAGAC ACCTTATGATCTCTCGAAACACCTGGAATAACTGTGTAGTTGTTGATGTCCTCACAGGAAGATCCGGAG GTTCAATTTAAITGGTACGTCGATGGTGTGGAAGTGCAATAATGCGAAGACTAAGCCGAGAGAGGAACAG TTCAATTCACCTTATCGGTGGTTCCTGATCTTTCAGTCTTTCAGCTTTCGACGTGGATTTGGCTTAAACGGAAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCAAGTCTACACGCTTCCCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAGT TTGACGTGTTTGGTAAAGGGGTTTTATCCCTCAGATATGTTGTCGAATGGGAGTCTAATGGTCAGCCT GAGAACTAATAAAGACTACGCCACCGTCTTGGAATTCAGGATCAGGATCTTTCTTCTCTACAGCAAAATG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAAATCTCTGAGCTGTCTCTTGGGAAA</p>

695	IL2-119 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCTGCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTATAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTAGTTGTGTGATGCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
696	K35E/D84V mutein fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGTGTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACCTGTAGTTGTGTGATGCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

697	IL2-115 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTGAATCTACTAGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTTGGAGGAGGATCCGAAAAGTATAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
698	IL2-109 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAAACTTACTCAGATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACCTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

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701	R38Q/D84V mutein fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAACTCAATAATTACAAAATCCTAACTTACTCAGATGCTCAGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGTGTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTTGGAGGAGGATCCGAAAAGTAAATGATAGTCCCTCTTGC CTCCGTGCCCCTGACCTGAGTTCTCTGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATAATTGTTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCGTCTGAGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
702	IL2-116 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAACTCAATAATTACAAAATCCTAACTTACTCAGATGCTCAGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTAAATGATAGTCCCTCTTGC CTCCGTGCCCCTGACCTGAGTTCTCTGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGATGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAAGTAAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCGTCTGAGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

703	IL2-088 fused to IgG4 Fc S228P/R409K Mut215	<p>GCCCCACGTCCTCCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCAATCTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTAACAAAATCCTAAACTTAACATGCTCACGTTTAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACCTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCATTTGCGGCCACAGATCTGATAAGCAACATCAACGTTGATC GTCCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGGAATATGACAGACGAAACTCGACAAATCGTT GAAITTTCTCAATTCGATGGATCACTTTTATAGCCAACTATCATCATCAGCAGCTTGATGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCGGAAGTAAGTATGCGCCCTCCTTGCG CCTCCGTGCCCTGCACCTGAGTTCCTCGCGGTCTTTCAGTGTCTTCTGCTTTCCTCCACCCCAACCTTAAAGAC ACCTTTATGATCTCTCGAAACACCTGGAATAACTGTGTAGTTGTTGATGCTCTCACAGGAAGATCCGGAG GTTCAATTTAAITGGTACGTCGATGGTGTGGAAGTGCAATAATGCGAAGACTAAGCCGAGAGAGGAACAG TTCAATTCACCTTATCGGTGGTTCCTGATCCTTCAGGTCTTGACGTTGGATTTGGCTTAAACGGAAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCAAGTCTACACGCTTCCTCCTCTCAGGAGGAGATGACCAAAAAACCAAGTTAAGT TTGACGTGTTTGGTAAAGGGGTTTTATCCCTCAGATATGTTGTCGAATGGGAGTCTAATGGTCAGCCT GAGAACTAATAAAGACTACGCCACCGTCTTGGAATTCAGGATCAGGATCTTTCTTCTCTACAGCAAAATG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAAATCTCTGAGCTGTCTCTGGGAAA</p>
704	IL2-097 fused to IgG4 Fc S228P/R409K Mut215	<p>GCCCCACGTCCTCCTCAAACTAAAAAGACGCAACTTCAGCTTGAGAAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTAACAAAATCCTAAACTTAACATGCTCACGTTTAAGTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACCTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCATTTGCGGCCACAGATCTGATAAGCAACATCAACGTTGATC GTCCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGGAATATGACAGACGAAACTCGACAAATCGTT GAAITTTCTCAATTCGATGGATCACTTTTATAGCCAACTATCATCATCAGCAGCTTGATGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCGGAAGTAAGTATGCGCCCTCCTTGCG CCTCCGTGCCCTGCACCTGAGTTCCTCGCGGTCTTTCAGTGTCTTCTGCTTTCCTCCACCCCAACCTTAAAGAC ACCTTTATGATCTCTCGAAACACCTGGAATAACTGTGTAGTTGTTGATGCTCTCACAGGAAGATCCGGAG GTTCAATTTAAITGGTACGTCGATGGTGTGGAAGTGCAATAATGCGAAGACTAAGCCGAGAGAGGAACAG TTCAATTCACCTTATCGGTGGTTCCTGATCCTTCAGGTCTTGACGTTGGATTTGGCTTAAACGGAAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCAAGTCTACACGCTTCCTCCTCTCAGGAGGAGATGACCAAAAAACCAAGTTAAGT TTGACGTGTTTGGTAAAGGGGTTTTATCCCTCAGATATGTTGTCGAATGGGAGTCTAATGGTCAGCCT GAGAACTAATAAAGACTACGCCACCGTCTTGGAATTCAGGATCAGGATCTTTCTTCTCTACAGCAAAATG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAAATCTCTGAGCTGTCTCTGGGAAA</p>

705	R38N/H16L mutein fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGTTGCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAACTCAATAATTACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTATAGTATGGCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACCTGTAGTTGTGTGATGCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTGCACGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATAATTGTTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCGGTTCTGGATTACAGCGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
706	IL2-098 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAACTCAATAATTACAAAAATCCTAACTTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACCTGTAGTTGTGTGATGCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCTGATGGTGTGAAAGTGCATAATGCGAAGACTAAAGCCGAGAGAGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTGCACGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTACAAGACTACGCCACCGGTTCTGGATTACAGCGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

707	IL1.2-100 fused to IgG4 Fc S228P/R409K Mut2.15	<p>GCCCCCTACGTCCTCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTTCAGATG ATTTTGAAACGGAAATCAATAAATTACAAAACTCTAAACCTTACTAACATGCTCACGTTTAAAGTTTATATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTTGGAGGAGGAACTTAAACCACTTGAGGAAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCAATTTGGCGGCACAGATCTGTATAGCAACATCAACAGTGAAGC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGACAGCAAACTCTGCACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTTFAGCCAACTCTATCATCAGCACGTTGCTGTTGGTGGAGGATCG GGAGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCGGAAAGTAAGTATAGGCCCTCTCTTGC CCTCCGTGCCCTGCACCTGAGTTCTCTGGCGGTCTCTCAGTGTCTTTTGTCTTCCACCCCAAACTTAAAGAC ACCTTATGATCTCTCGAAACACCTGAAGTAACCTGCTGTAGTTGTTGTGATCTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCGATGGTGTGAAGTGCATAAATCGAAGACTAAGCCGAGAGAGGAACAG TTCAATTCACCTTATCGCGTGGTTTTCAGTCTCTCAGTCTTGACGTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAAGGA CAACCGAGGAGCCCCAAGTCTACACGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACAGGTAAAGT TTGACGTGTTTGGTAAAGGGGTTTTATCCCTCAGATATGTTGTGCAATGGGAGTCTAATGGTTCAGCCT GAGACAAATTAAGAAGCTACGCAACCCGTTCTGGATCTCAGCGGATCTTTCTCTCTCTACAGCAAAATG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAGGCCCTCCAT AATCACTACAGCGAGAAATCTCTGAGCTTGCTCTTGGGAAA</p>
708	IL1.2-090 fused to IgG4 Fc S228P/R409K Mut2.15	<p>GCCCCCTACGTCCTCTCAACTAAAAAGACGCAACTTTCAGCTTGAGCATCTTCTTCTCGACCTTTCAGATG ATTTTGAAACGGAAATCAATAAATTACAAAACTCTAAACCTTACTAACATGCTCACGTTTAAAGTTTATATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTTGGAGGAGGAACTTAAACCACTTGAGGAAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCAATTTGGCGGCACAGATCTGTATAGCAACATCAACAGTGAAGC GTCTGGAACTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGACAGCAAACTCTGCACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTTFAGCCAACTCTATCATCAGCACGTTGCTGTTGGTGGAGGATCG GGAGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCGGAAAGTAAGTATAGGCCCTCTCTTGC CCTCCGTGCCCTGCACCTGAGTTCTCTGGCGGTCTCTCAGTGTCTTTTGTCTTCCACCCCAAACTTAAAGAC ACCTTATGATCTCTCGAAACACCTGAAGTAACCTGCTGTAGTTGTTGTGATCTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCGATGGTGTGAAGTGCATAAATCGAAGACTAAGCCGAGAGAGGAACAG TTCAATTCACCTTATCGCGTGGTTTTCAGTCTCTCAGTCTTGACGTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAAGGA CAACCGAGGAGCCCCAAGTCTACACGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACAGGTAAAGT TTGACGTGTTTGGTAAAGGGGTTTTATCCCTCAGATATGTTGTGCAATGGGAGTCTAATGGTTCAGCCT GAGACAAATTAAGAAGCTACGCAACCCGTTCTGGATCTCAGCGGATCTTTCTCTCTCTACAGCAAAATG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAGGCCCTCCAT AATCACTACAGCGAGAAATCTCTGAGCTTGCTCTTGGGAAA</p>

709	IL2-092 fused to IgG4 Fc S228P/R409K Mut215	<p>GCCCCACGTCCTCCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCATCTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAACTCTAAACTTACTAGAAATGCTCACGAAGAAGTTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACCTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGCTGATC GTCCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGAAATATGACAGACGAAACTCGACCAATCGTT GAAATTTCTCAATTCGATGGATCACTTTTATAGCCAACTATCATCATCAGCAGCTTGATGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCGGAAGTAAGTATGCGCCCTCTTTGC CCTCCGTGCCCTGCACCTGAGTTCTTCGGCGGTCTTTCAGTGTCTTTGTTTCCACCCCAACCTTAAAGAC ACCTTTATGATCTCTCGAAACACCTGGAAGTAACCTGTGTAGTTGTTGTGATGCTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCGATGGTGTGGAAGTGCAATAATGCGAAGACTAAGCCGAGAGAGGAACAG TTCAATTTCACTTATCGGTGGTTTTTCAGTCTTTCAGGTCTTGACGTGGATTTGGCTTAAACGGAAAAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGGCTTCCATCAAGCATTTGAAAAAAACCATAAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCAAGTCTACACGCTTCCCTCCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAGT TTGACGTGTTTGGTAAAGGGGTTTTTATCCCTCAGATATGTTGTGCAATGGGAGTCTAATGGTCAGCCT GAGAACAATTACAAGACTACGCCACCGTTCTGGATTCAGATTCAGAGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAAATCTCTGAGCTGTCTCTTGGGAAA</p>
710	IL2-110 fused to IgG4 Fc S228P/R409K Mut215	<p>GCCCCACGTCCTCCTCAAACTAAAAAGACGCAACTTCAGCTTGAGCATCTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAACTCTAAACTTACTAGAAATGCTCACGAAGAAGTTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACCTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCCAAAAACCTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGCTGATC GTCCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGAAATATGACAGACGAAACTCGACCAATCGTT GAAATTTCTCAATTCGATGGATCACTTTTATAGCCAACTATCATCATCAGCAGCTTGATGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCGGAAGTAAGTATGCGCCCTCTTTGC CCTCCGTGCCCTGCACCTGAGTTCTTCGGCGGTCTTTCAGTGTCTTTGTTTCCACCCCAACCTTAAAGAC ACCTTTATGATCTCTCGAAACACCTGGAAGTAACCTGTGTAGTTGTTGTGATGCTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTCGATGGTGTGGAAGTGCAATAATGCGAAGACTAAGCCGAGAGAGGAACAG TTCAATTTCACTTATCGGTGGTTTTTCAGTCTTTCAGGTCTTGACGTGGATTTGGCTTAAACGGAAAAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGGCTTCCATCAAGCATTTGAAAAAAACCATAAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCAAGTCTACACGCTTCCCTCCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAGT TTGACGTGTTTGGTAAAGGGGTTTTTATCCCTCAGATATGTTGTGCAATGGGAGTCTAATGGTCAGCCT GAGAACAATTACAAGACTACGCCACCGTTCTGGATTCAGAGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAAATCTCTGAGCTGTCTCTTGGGAAA</p>

711	IL2-Inactive fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAGAAATGCTCACGGCAAGTTTGTATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATGGTGTCTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCGATATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATGATATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAATG TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATAATGTTGTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
712	IL2-99 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAACGGAAATCAATAATTACAAAAATCCTAACTTACTAACTGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGGAAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAATGATGCCCCTCTTGC CTCCGTGCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAATG TTGACGTGTTTGTAAAGGGGTTTATCCCTCAGATAATGTTGTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

713	IL2-101 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGAACCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGGTGGAGGAGGATCCGAAAAGTATAGTATGGCCCTCCTTGC CTCCGTGCCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTAAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTTGTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
714	IL2-102 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCAATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGTCTGATAAGCAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACCTTTTAGCCAATCTATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAAGTATGGCCCTCCTTGC CTCCGTGCCCCTGACCTGAGTTCTCTGGCGGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCAATAATGCGAAGACTTAAGCCGAGAGAGGAACAG TTTCAATTTCCACTTATCGCGTGGTTTCAGTCTTTCAGTCTTTCAGCTGGATTTGGCTTAAACGGAAGGAA TATAAGTGCAAGGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGGTTTTATCCCTCAGATAATTTGTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

715	IL2-103 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGGAACATCAACGTGATC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGATCGGTTGGAGGAGGATCCGAAAGTATAGTATGGCCCTCCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTGTGTTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGGTGTTTCAGTCTTTCAGTCTTTCAGCTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGTTGCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA
716	IL2-104 fused to IgG4 Fc S228P/R409K Mut215	GCCCTACGTCCTCCTCAACTAAAGACGCAACTTCAGCTTGAGCATCTTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATTACAAAAATCCTAACTTACTGAAATGCTCACGTTTAAAGTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAAATCTTGTCCGTCCAAAACTTTTCAATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGAGC GTCTTGGAACTGAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGTTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGTTGGAGGAGGATCCGAAAGTAAAGTATGGCCCTCCTTGC CTCCGTGCCCTGACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTCTTCCACCCAAACCTTAAAGAC ACCTTATGATCTCTCGAACACCTGAAGTAACTGTGTAGTTGTGTGATCTCACAGGAAGATCCGGAG GTTCAATTTAAATGGTACGTCTGATGGTGTGAAATGCGATAAATGCGAAGACTAAAGCCGAGAGAGAACAG TTCAATTTCCACTTATCGGTGTTTCAGTCTTTCAGTCTTTCAGCTTGGCTTAAACGGAAGGAA TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTTGAAAAAACCATAAAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGTAAAGGGTTTTATCCCTCAGATAATTGTTGTCGAATGGGAGTCTTAATGGTCAGCCT GAGAACAAATTAAGAGACTACGCCACCGTTCTGGATTCAGACGGATCTTCTTCTCTACAGCAAAATTG ACGGTAGACAAAAGCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAATCTCTGAGCTTGTCTTTGGGAAA

717	IL2-114 fused to IgG4 Fc S228P/R409K Mut215	<p>GCCCCACGTCTCTCAAATAAAAAAGACGCAACTTCAGCTTGAGAAACCTCTTCTCGACCTTCAGATG ATTTTGAAACGGAAATCAATAATACAAAACTCTAAACTTACTAGAACTGCTCAGCGAGAAGTTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCACAAAACCTTTCATTTGCGGCACAGATCTGATAAGCAACATCAACCGTGATC GTCCTGGAACCTGAAAGGAAGCGAAACGACACTTTATGTGCGAATATGCAGACGAAACTCGCACAAATCGTT GAATTTCTCAATCGATGGATCACTTTTAGCCCAATCTATCATCAGCACTGTGATCTGTTGTGGAGGATCG GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAGTAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGCACCTGAGTTCTCGCGGTCTCTCAGTGTCTTCTCCACCCAAACCTCAAGAC ACCTTATGATCTCTCGAAACACCTGAATAACCTGTGTGTTGTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTGATGGTGTGAAAGTGCATAAATGCGAAGACATAAGCCGAGAGGAACAG TTCAATTTCACTTATCGGTGGTTTTAGTCTCTTCAGTCTTGACCTGGATTTGGCTTAAACGGAAAAAGGAA TATAAGTGCAAGGTAAGTATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCAAGTCTACACGCTTCTCCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGGTAAAGGGTTTTTATCCCTCAGATATGTTGTGCGAATGTTGAGTCTTAATGGTCAGCCT GAGAACAAATTA CAAGACTACGCCACCGTTCTGGATTTCAGACGGAATCTTCTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCCAT AATCATACACGCAGAAATCTCTGAGCTTGCTCTTGGGAAA</p>
718	IL2-117 fused to IgG4 Fc S228P/R409K Mut215	<p>GCCCCACGTCTCTCAAATAAAAAAGACGCAACTTCAGCTTGAGCACTCTTCTTCAGACCTTCAGATG ATTTTGAAACGGAAATCAATAATACAAAACTCTAAACTTACTAGAACTGCTCAGCGAGAAGTTTTTATATG CCAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGCTCCGTCACAAAACCTTTCATTTGCGGCACAGATCTGATAAGCAACATCAACCGTGAGC GTCCTGGAACCTGAAAGGAAGCGAAACGACGCTTTATGTCGAAATATGCAGACGAAACTCGCACAAATCGTT GAATTTCTCAATCGATGGATCACTTTTAGCCCAATCTATCATCAGCACTGTGATCTGTTGTGGAGGATCG GGAGTTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAGTAAGTATGGCCCTCCTTGC CCTCCGTGCCCTGCACCTGAGTTCTCGCGGTCTCTCAGTGTCTTCTCCACCCAAACCTCAAGAC ACCTTATGATCTCTCGAAACACCTGAAATAACCTGTGTGTTGTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTGATGGTGTGAAAGTGCATAAATGCGAAGACATAAGCCGAGAGGAGAACAG TTCAATTTCACTTATCGGTGGTTTTAGTCTCTTCAGTCTTGACCTGGATTTGGCTTAAACGGAAAAAGGAA TATAAGTGCAAGGTAAGTATAAAGGCTTCCATCAAGCATTTGAAAAAACCATTAAGTAAAGCAAAAAGGA CAACCGAGGGAGCCCAAGTCTACACGCTTCTCCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAAGT TTGACGTGTTTGGTAAAGGGTTTTTATCCCTCAGATATGTTGTGCGAATGTTGAGTCTTAATGGTCAGCCT GAGAACAAATTA CAAGACTACGCCACCGTTCTGGATTTCAGACGGAATCTTCTCTCTACAGCAAAATTG ACGGTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCCAT AATCATACACGCAGAAATCTCTGAGCTTGCTCTTGGGAAA</p>

719	IL2-108 fused to IgG4 Fc S228P/R409K Mut215	GCCCCACGTCTCTCAACTAAAAAGACGCAACTTCAGCTTGAGAACTTCTTCTCGACCTTCAGATG ATTTTGAACGGAATCAATAATTACAAAAATCCTGAATCTACTAACATGCTCACGTTTAAAGTTTATATG CCAAAAAAGGCCACTGAGTTGAAACACCTTCAATGCTTGGAGGAGGAACTTAAACCACTTGAGGAAGCC TTGAATCTTGTCTCCGTCCAAAACTTTTCATTTGCGGCCACGAGATCTGATAAGCAACATCAACGTGATC GTCCTGGAACGTGAAAGGAAGCGAAACGACGTTTATGTGCGAATATGCAGACGAAACTGCGACAAATCGTT GAAATTTCTCAATCGATGGATCACTTTTAGCCAATCTATCATCAGCACGTTGACTGGTGGAGGATCG GGAGGTGGAGGATCTGGAGGAGGAGGATCGGGTGGAGGAGGATCCGAAAAGTAAGTATGGCCCTCCTTGC CTCCGTGCCCTGCACCTGAGTTCTTCGGCGTCTTTCAGTGTCTTCCACCCCAACCTAAAGAC ACCTTATGATCTCTGAAACACCTGAAGTAACCTGTGTAGTTGTTGATGTTCTCACAGGAAGATCCGGAG GTTCAATTTAAATTGGTACGTTCGATGGTGTGAAAGTGCATAATGCGAAGACTAAGCCGAGAGAGGAACAG TATAAGTGCAAGTAAGTAATAAAGGCTTCCATCAAGCATTGAAAAAACCATAGTAAAGCAAAAGGA CAACCGAGGGAGCCCAAGTCTACAGCTTCTCTCTCTCAGGAGGAGATGACCAAAAAACCAAGTAAGT TTGACGTGTTTGGTAAAGGGGTTTTATCCCTCAGATAATTGTTGTCGAAATGGGAGTCTAATGGTCAGCCT GAGAACAATTACAAGACTACGCCACCCGTTCTGGATTTCAGCGGATCTTCTTCTCTACAGCAAAATTG ACGTTAGACAAAAGCCGCTGGCAAGAGGGCAATGTCTTCAGTTGTTCTGTAAATGCACGAAGCCCTCCAT AATCACTACACGCAGAAAATCTCTGAGCTTGTCTCTTGGGAAA
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CLAIMS

1. An IL-2 agent for use a method of treating an autoimmune disease in a human subject, wherein the IL-2 agent is administered at a dose of 0.5 µg/kg to 300 µg/kg, wherein the IL-2 agent is
5 an IL-2 variant or an IL-2 fusion protein comprising the IL-2 variant, and wherein the IL-2 variant comprises:
 - (i) the amino acid substitution H16L or H16N, and/or the amino acid substitution I92S; and
 - (ii) the amino acid substitutions V69A, Q74P, and C125S,
corresponding to human IL-2 (SEQ ID NO: 1031).
10
2. A method of treating an autoimmune disease, comprising administering to a human subject in need thereof an IL-2 agent at a dose of 0.5 µg/kg to 300 µg/kg, wherein the IL-2 agent is an IL-2 variant or an IL-2 fusion protein comprising the IL-2 variant, and wherein the IL-2 variant comprises:
 - (i) the amino acid substitution H16L or H16N, and/or the amino acid substitution I92S; and
 - (ii) the amino acid substitutions V69A, Q74P, and C125S,
15 corresponding to human IL-2 (SEQ ID NO: 1031), thereby treating the autoimmune disease.
3. The IL-2 agent for use of claim 1, or the method of claim 2, wherein the IL-2 agent is
20 administered at a dose of 0.5 µg/kg to 100 µg/kg, 1 µg/kg to 50 µg/kg, 2 µg/kg to 40 µg/kg, 3 µg/kg to 30 µg/kg, 4 µg/kg to 25 µg/kg, 5 µg/kg to 20 µg/kg, 10 µg/kg to 15 µg/kg, 1 µg/kg to 40 µg/kg, 1 µg/kg to 30 µg/kg, 1 µg/kg to 20 µg/kg, 1 µg/kg to 10 µg/kg, 1 µg/kg to 5 µg/kg, 5 µg/kg to 50 µg/kg, 10 µg/kg to 50 µg/kg, 20 µg/kg to 50 µg/kg, 30 µg/kg to 50 µg/kg, 40 µg/kg to 50 µg/kg, 0.5 µg/kg to 2 µg/kg, 3 µg/kg to 5 µg/kg, 6 µg/kg to 10 µg/kg, 12 µg/kg to 20 µg/kg, or 25 µg/kg to 40 µg/kg.
25
4. The IL-2 agent for use of claim 1 or 3, or the method of claim 2 or 3, wherein the IL-2 agent is administered at a dose of 1 µg/kg, 4 µg/kg, 8 µg/kg, 16 µg/kg, or 32 µg/kg.
5. The IL-2 agent for use of any of claims 1 or 3-4, or the method of any of claims 2-4, wherein
30 the IL-2 agent is administered once a week, once every two weeks, or once every four weeks.
6. The IL-2 agent for use of any of claims 1 or 3-5, or the method of any of claims 2-5, wherein the IL-2 agent is administered subcutaneously.
7. The IL-2 agent for use of any of claims 1 or 3-6, or the method of any of claims 2-6, wherein
35 the autoimmune disorder is systemic lupus erythematosus (SLE), autoimmune hepatitis (AIH), immune-mediated focal segmental glomerulosclerosis (FSGS), or alopecia areata (AA).

8. The IL-2 agent for use or the method of any of claims 1 or 3-7, or the method of any of claims 2 or 5-7, wherein the IL-2 variant further comprises the amino acid substitution T3A.
- 5 9. The IL-2 agent for use of any of claims 1 or 3-8, or the method of any of claims 2-8, wherein the IL-2 variant comprises the amino acid sequence of any of SEQ ID NOs: 4, 5, 11, 1000, 1001, or 1002, an amino acid sequence that is at least 95% identical thereto or differs by no more than 1, 2, 3, 4, or 5 amino acids therefrom, or a functional fragment thereof.
- 10 10. The IL-2 agent for use of any of claims 1 or 3-9, or the method of any of claims 2-9, wherein the IL-2 agent comprises an IL-2 fusion protein comprising the IL-2 variant.
11. The IL-2 agent for use or the method of claim 10, wherein the IL-2 fusion protein further comprises an Fc region.
- 15 12. The IL-2 agent for use or the method of claim 11, wherein the Fc region comprises an Fc region of IgG1 allotype m3 comprising an N297G substitution according to EU numbering.
13. The IL-2 agent for use or the method of claim 11 or 12, wherein the Fc region comprises the amino acid sequence of SEQ ID NO: 1003, or an amino acid sequence that is at least 95% identical thereto or differs by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 amino acids therefrom, or a functional fragment thereof.
- 20 14. The IL-2 agent for use or the method of any of claims 11-13, wherein the Fc region is fused to the C-terminus of the IL-2 variant.
- 25 15. The IL-2 agent for use or the method of any of claims 11-14, wherein the IL-2 fusion protein further comprises a linker.
- 30 16. The IL-2 agent for use or the method of claim 15, wherein the linker comprises (G₄S)₄ (SEQ ID NO: 48).
17. The IL-2 agent for use or the method of any of claims 11-16, wherein the fusion protein comprises an amino acid sequence of any of SEQ ID NOs: 1004, 1005, 1006, 1007, 1008, or 1009, an amino acid sequence that is at least 95% identical thereto or differs by no more than 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 amino acids therefrom, or a functional fragment thereof.
- 35

18. The IL-2 agent for use or the method of any of claims 11-17, wherein the fusion protein forms a dimer.