

MINIATURE GUIDANCE AND NAVIGATION CONTROL (miniGNC) ANTIBODY-LIKE PROTEINS AND METHODS OF MAKING AND USING THEREOF

CROSS REFERENCE TO RELATED APPLICATIONS

This application claims the benefit of the filing date of U.S. Provisional Application Ser. No. 62/991,042 filed March 17, 2020 under 35 U.S.C. 119(e), the entire disclosures of which are incorporated by reference herein.

TECHNICAL FIELD

The present application generally relates to the technical field of multi-specific antibody for cancer immunotherapy and more particularly relates to making and using miniature Guidance and Navigation Control (miniGNC) antibodies with multiple binding activities against surface molecules of both immune cells and tumor cells.

BACKGROUND

Therapeutic antibodies have become a mainstay in treatment of several diseases, including but not limited to cancer, infection, and autoimmunity. While monoclonal, monospecific antibodies provide a straightforward mechanism to treat disease, e.g., via inhibition or activation of specific signalling pathways, multi-specific antibodies allow more complex therapeutic mechanisms to be explored. By targeting multiple distinct antigens, or multiple epitopes within a single antigen, biological responses such as cell colocalization and activation can be elicited, which enables, for example, the redirection of T cells and other immune cells to the site of specific antigen-expressing tumor cells. In this way, bispecific and multi-specific antibodies have become important platforms in the field of immuno-oncology.

Due to the advantages of multi-specific antibody platforms, many such frameworks have been developed. One such platform is known as Guidance and Navigation Control (GNC). The GNC proteins include the proteins linking multiple functionally independent binding moieties into a single entity that is capable of bringing both effector cells and target cells together (see Applicant's applications, WO/2019/005641, WO2019191120, and PCT/US20/59230, incorporated herein in its entirety). In general, these platforms are restricted to at least two specificities, preventing the exploration of complex therapeutic mechanisms that require binding to more than two antigens. For antibody platforms with more than two specificities, the increased number of binding domains usually necessitates formation of large molecules which often have undesirable physical and biological properties. The increase in molecular weight can reduce developability, as larger and more complex molecules are more likely to have problems with aggregation and solubility. Furthermore, the ability of large macromolecules to penetrate into solid tumors may be hindered compared to proteins of smaller size. Thus, there is a need for multi-specific antibody platforms with more than two specificities that are not significantly larger than monoclonal IgG antibodies.

SUMMARY

The following summary is illustrative only and is not intended to be in any way limiting. In addition to the illustrative aspects, embodiments, and features described above, further aspects, embodiments, and features will become apparent by reference to the drawings and the following detailed description.

The application provides proteins with binding specificities such as multi-specific protein like antibodies including multi-specific antibodies, and the fragments of these binding proteins including without limitation scFv domain, Fab region, Fc domain, VH, VL, light chains, heavy chains, variable regions, and complementary determining region (CDR). The application further provides method of making and using the antibody-like proteins disclosed herein.

In one aspect, the application provides multi-specific antibody-like proteins. In one embodiment, the multi-specific antibody-like protein having a N-terminus and a C-terminus, including, a first monomer, including, from the N-terminus to the C-terminus, a first binding monomer, a CH1 domain, a first hinge, a first CH2 domain, and a first CH3 domain, wherein the first monomer may comprise optionally a first binding domain (D1) linked to the N-terminus, a fourth binding domain (D4) linked to the C-terminus, or both, a second monomer, including, from the N-terminus to the C-terminus, a second binding monomer, a CL domain, a second hinge, a second CH2 domain, and a second CH3 domain, wherein the second monomer may comprise optionally a second binding domain (D2) linked to the N-terminus, a fifth binding domain (D5) linked to the C-terminus, or both, wherein the first binding monomer and a second binding monomer are configured to form a dimer, wherein the first monomer and the second monomer are covalently paired through at least one disulfide bond between the CH1 domain and the CL domain and at least one disulfide bond between the first hinge and the second hinge, and wherein the multi-specific antibody-like protein is at least bi-specific.

In one embodiment, the multi-specific antibody-like protein may be tri-specific, tetra-specific, or penta-specific. In one embodiment, the multi-specific antibody-like protein may be monoclonal antibodies. In one embodiment, the multi-specific antibody-like protein may be purified monoclonal antibody. In one embodiment, the multi-specific antibody-like protein may be humanized antibodies.

In one embodiment, the multi-specific antibody-like protein may further comprise a disulfide bond between the first CH3 domain and a second CH3 domain.

In one embodiment, the multi-specific antibody-like protein may further comprise a second disulfide bond between the first hinge and the second hinge.

In one embodiment, connecting linkers are used between various domains. In one embodiment, the connecting linker may comprise a $(G_xS_y)_n$ linker, wherein n, x, and y each independently is an integer from 1 to 10. In one embodiment, D1, D2, D4 or D5 are linked to N- or C-terminus through a linker. In one embodiment, the linker may comprise a $(G_xS_y)_n$ linker. n, x, and y each independently may be an integer from 1 to 10. In one embodiment, n is 1, 2, 3, 4,

5, 6, 7, 8, 9 and 10. In one embodiment, x is 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10. In one embodiment, y is 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10.

In one embodiment, the first CH3 domain is configured to form a hole structure, wherein the second CH3 domain is configured to form a knob structure, and wherein the first CH2 and CH3 domains and the second CH2 and CH3 domains are configured to heterodimerize to form a complementary Fc domain.

In one embodiment, the first CH3 domain may comprise at least one 'hole' mutation at T366S, L368A or Y407V and the second CH3 domain may comprise a 'knob' mutation at T366W.

In one embodiment, the Fc domain may comprise mutations at H435R/Y436F.

In one embodiment, the Fc domain is engineered to eliminate effector cell functions selected from ADCC, ADCP, or CDC.

In one embodiment, the Fc domain may comprise at least one mutation at L234A, L235A, G237A, K322A (Eu numbering). In one embodiment, the Fc region comprise mutations at L234A/L235A/G237A/K322A. In one embodiment, the Fc region comprise mutations at L234A/L235A/K322A (Eu numbering). In one embodiment, the Fc domain comprise null mutation. In one embodiment, the IgG4 Fc domain comprises the mutation S228P (Eu numbering). In one embodiment, the IgG4 Fc domain comprises the mutations S228P/F234A/L234A (Eu numbering).

In one embodiment, the heavy chain constant sequence may be derived from IgG1 or IgG4.

In one embodiment, the Fc domain may include an amino acid sequence having at least 50%, 60%, 70%, 75%, 80%, 85%, 90%, 95%, 97%, 98%, 99%, or 100% identity to SEQ ID NO. 313 or 314.

In one embodiment, the first binding monomer may comprise a VH domain, a second binding monomer may comprise a VL domain, and the VH, CH1, VL, CL domains form a Fab region as a third binding domain (D3). In one embodiment, the Fab region may comprise a disulfide bond between VH-44C and VL 100C.

In one embodiment, the first binding monomer and the second binding monomer form a NKG2D receptor as a third binding domain (D3).

In one embodiment, the D1, D2, D4, and D5 is independently a scFv domain, a VHH domain, a receptor, or a ligand.

In one embodiment, the scFv domain may have a VH domain linked to a VL domain. In one embodiment, the scFv domain have may have VH-VL orientation. In one embodiment, the scFv domain have a VL-VH orientation.

In one embodiment, the scFv domain may comprise a disulphide bond between VL and VH. In one embodiment, the disulfide bond is between VL100 and VH44 of the scFv domain. In one embodiment, the scFv domain may comprise the mutation R19S in the VH.

In one embodiment, the VHH domain may comprise the mutation R19S in the VH or VHH.

In one embodiment, at least one, two, or three of D1, D2, D4, and D5 may be scFv. In one embodiment, all of D1, D2, D4, and D5 may be scFv.

In one embodiment, at least one, two, or three of D1, D2, D4, and D5 may be a VHH domain. In one embodiment, all of D1, D2, D4, and D5 may be VHH domains.

In one embodiment, at least one, two, or three of D1, D2, D4, and D5 may be a receptor. In one embodiment, all of D1, D2, D4, and D5 may be receptors.

In one embodiment, at least one, two, or three of D1, D2, D4, and D5 may be a ligand. In one embodiment, all of D1, D2, D4, and D5 may be ligands.

In one embodiment, the D1, D2, D3, D4, and D5 each independently may have a binding specificity against an antigen selected from a T cell activating receptor, an immune cell binding receptor, an immune checkpoint molecule, a co-stimulation factor, a receptor of a leukocyte, a tumor antigen, a tumor associated antigen (TAA), a receptor of a tissue cell, a receptor of a cancer cell, or a combination thereof.

In one embodiment, the binding domain for T cell activating receptor is adjacent to the binding domain for the tumor associated antigen (TAA).

In one embodiment, T cell activating receptor may comprise CD3.

In one embodiment, an immune checkpoint receptor may comprise PD-L1, PD-1, TIGIT, TIM-3, LAG-3, CTLA4, BTLA, VISTA, PD-L2, CD160, LOX-1, siglec-15, CD47, HVEM SIRP α CSF1R, CD73, Siglec-15, CD47 or a combination thereof.

In one embodiment, a co-stimulating receptor may comprise 4-1BB, CD28, OX40, GITR, CD40L, CD40, ICOS, LIGHT, CD27, CD30, or a combination thereof.

In one embodiment, a tumor associated antigen may comprise EGFR, HER2, HER3, EGFRvIII, CD19, BCMA, CD20, CD33, CD123, CD22, CD30, ROR1, CEA, LMP1, LMP2A, Mesothelin, PSMA, EpCAM, glypican-3, gpA33, GD2, TROP2, NKG2D ligand, CD39, CLDN18.2, DLL3, HLA-G, FcRH5, GPRC5D, LIV-1, MUC1, CD138, CD70, uPAR, CD38 or a combination thereof.

In one embodiment, the D1, D2, D3, D4, and D5 each independently may have a binding specificity against an antigen selected, EGFR, HER2, HER3, EGFRvIII, ROR1, CD3, CD28, CEA, LMP1, LMP2A, Mesothelin, PSMA, EpCAM, glypican-3, gpA33, GD2, TROP2, NKG2D, NKG2D ligand, BCMA, CD19, CD20, CD33, CD123, CD22, CD30, PD-L1, PD1, OX40, 4-1BB, GITR, TIGIT, TIM-3, LAG-3, CTLA4, CD40, CD40L, VISTA, ICOS, BTLA, LIGHT, HVEM, CSF1R, CD73, CD39, CLDN18.2, DLL3, HLA-G, FcRH5, GPRC5D, LIV-1, MUC1, CD138, CD70, CD16, uPAR, Siglec-15, CD47, CD38, , NKp46, PD-L2, CD160, LOX-1, SIRP α CD27 and the Fc domain may comprise a human IgG Fc domain.

In one embodiment, D1 may have a binding specificity to CD3, CD20, CEA, HER2, EGFR or NKG2D ligand. In one embodiment, D2 may have a binding specificity to HER3, EGFR, CD3, or CD19. In one embodiment, D3 may have a binding specificity to HER3, EGFR, CD3, or NKG2D ligands. In one embodiment, D4 may have a binding specificity to 4-1BB, or EGFR. In one embodiment, D5 may have a binding specificity to PD-L1 or HER3.

In one embodiment, D1 may have a binding specificity to CD3, D2 may have a binding specificity to HER3, D3 may have a binding specificity to EGFR, D4 may have a binding specificity to 4-1BB, and D5 may have a binding specificity to PD-L1.

In one embodiment, D1 may have a binding specificity to EGFR, D2 may have a binding specificity to HER3, D3 may have a binding specificity to CD3, D4 may have a binding specificity to 4-1BB, and D5 may have a binding specificity to PD-L1.

In one embodiment, D1 may have a binding specificity to EGFR, D2 may have a binding specificity to CD3, D3 may have a binding specificity to HER3, D4 may have a binding specificity to 4-1BB, and D5 may have a binding specificity to PD-L1.

In one embodiment, D1 may have a binding specificity to CD3 or EGFR, D2 may have a binding specificity to CD19, D3 may have a binding specificity to CD3 or EGFR, D4 may have a binding specificity to 4-1BB, and D5 may have a binding specificity to PD-L1.

In one embodiment, D1 and D4 each may have a binding specificity to EGFR, D2 and D5 each may have a binding specificity to HER3, and D3 may have a binding specificity to CD3.

In one embodiment, D1 may have a binding specificity to CD20, D2 may have a binding specificity to CD19, D3 may have a binding specificity to CD3, D4 may have a binding specificity to 4-1BB, and D5 may have a binding specificity to PD-L1.

In one embodiment, D1 may have a binding specificity to NKG2D ligand, D2 may have a binding specificity to CD19, D3 may have a binding specificity to CD3, D4 may have a binding specificity to 4-1BB, and D5 may have a binding specificity to PD-L1.

In one embodiment, D1 may have a binding specificity to CD3, and D3 may comprise a NKG2D receptor. In one embodiment, the protein may further comprise D2 having a binding specificity to CD19. In one embodiment, the protein may further comprise D5 having a binding specificity to PD-L1. In one embodiment, the protein may further comprise D4 having a binding specificity to 4-1BB.

In one embodiment, the multi-specific antibody-like protein is bi-specific. In one embodiment, D2 may have a binding specificity to HER3, D3 may have a binding specificity to CD3. In one embodiment, D1 may have a binding specificity to HER2, D3 may have a binding specificity to CD3. In one embodiment, D1 may have a binding specificity to EGFR, D3 may have a binding specificity to CD3. In one embodiment, D3 may have a binding specificity to CD3, D5 may have a binding specificity to HER3. In one embodiment, D3 may have a binding specificity to CD3, D4 may have a binding specificity to EGFR.

In one embodiment, the bi-specific antibody-like protein may include an amino acid sequence having at least 50%, 60%, 70%, 75%, 80%, 85%, 90%, 95%, 97%, 98%, 99%, or 100% identity to SEQ ID NO. 1 and 3; 5 and 7; 9 and 11; 13 and 15; 53 and 55; 57 and 59; 113 and 115; 117 and 119; 121 and 123; 125 and 127; 157 and 159; 297 and 299; or 199 and 201.

In one embodiment, the multi-specific antibody-like protein is tri-specific. In one embodiment, D1 may have a binding specificity to EGFR, D2 may have a binding specificity to

HER3, D3 may have a binding specificity to CD3. In one embodiment, D1 may have a binding specificity to CEA, D2 may have a binding specificity to EGFR, D3 may have a binding specificity to CD3. In one embodiment, D3 may have a binding specificity to CD3, D4 may have a binding specificity to EGFR, D5 may have a binding specificity to HER3. In one embodiment, the antibody is a tri-specific antibody having the binding specificity to EGFR, HER3, and CD3. In one embodiment, the tri-specific antibody-like protein may include an amino acid sequence having at least 50%, 60%, 70%, 75%, 80%, 85%, 90%, 95%, 97%, 98%, 99%, or 100% identity to SEQ ID NO. 41 and 43; 45 and 47; 49 and 51; 101 and 103; 105 and 107; 109 and 111; 195 and 197; 137 and 139; or 161 and 163.

In one embodiment, the multi-specific antibody-like protein is tetra-specific. In one embodiment, D1 may have a binding specificity to EGFR, D2 may have a binding specificity to HER3, D3 may have a binding specificity to CD3, D4 may have a binding specificity to 4-1BB. In one embodiment, D1 may have a binding specificity to EGFR, D2 may have a binding specificity to HER3, D3 may have a binding specificity to CD3, D5 may have a binding specificity to PD-L1. the antibody is a tetra-specific antibody having the binding specificity to EGFR, HER3, CD3, and 4-1BB. the antibody is a tetra-specific antibody having the binding specificity to EGFR, HER3, CD3, and PD-L1. In one embodiment, the tetra-specific antibody-like protein may include an amino acid sequence having at least 50%, 60%, 70%, 75%, 80%, 85%, 90%, 95%, 97%, 98%, 99%, or 100% identity to SEQ ID NO. 33 and 35; 37 and 39; 141 and 143; 145 and 147; or 165 and 167.

In one embodiment, the antibody is penta-specific. In one embodiment, the antibody-like protein may have the binding specificity to EGFR, HER3, CD3, 4-1BB and PD-L1. In one embodiment, the penta-specific antibody-like protein may include an amino acid sequence having at least 50%, 60%, 70%, 75%, 80%, 85%, 90%, 95%, 97%, 98%, 99%, or 100% identity to SEQ ID NO. 17 and 19; 21 and 23; 25 and 27; 29 and 31; 69 and 71; 73 and 75; 77 and 79; 81 and 83; 85 and 87; 89 and 91; 93 and 95; 97 and 99; 129 and 131; 133 and 135; 149 and 151; 169 and 171; 173 and 175; or 177 and 179.

In a second aspect, the application provides novel sequences for complimentary determining regions (CDRs). In one embodiment, the application provides proteins, antibody-like proteins or antibodies comprising the CDRs as disclosed herein.

In one embodiment, the CDRs may have an affinity to CEA. In one embodiment, the CDRs may have an equilibrium dissociation constant (KD) to CEA, wherein the KD is not more than 0.1 nM, 2nM, 5nM, 10 nM, 20nM, 30nM or 50nM. In one embodiment, the CDR may include an amino acid sequence having at least 80% sequence identity to SEQ ID NO. 301, 302, 303, 304, 305, or 306.

In one embodiment, the application provides a protein having an affinity to CEA. In one embodiment, the protein may have a CDR H1 having an amino acid sequence having at least 80% sequence identity to SEQ ID NO.301. In one embodiment, the protein may have a CDR H2 having an amino acid sequence having at least 80% sequence identity to SEQ ID NO.302. In one

embodiment, the protein may have a CDR H3 having an amino acid sequence having at least 80% sequence identity to SEQ ID NO.303. In one embodiment, the protein may have a CDR L1 having an amino acid sequence having at least 80% sequence identity to SEQ ID NO.314. In one embodiment, the protein may have a CDR L2 having an amino acid sequence having at least 80% sequence identity to SEQ ID NO.305. In one embodiment, the protein may have a CDR L3 having an amino acid sequence having at least 80% sequence identity to SEQ ID NO.306. In one embodiment, the protein may include an amino acid sequence having at least 50%, 60%, 70%, 75%, 80%, 85%, 90%, 95%, 97%, 98%, 99%, or 100% sequence identity to an amino acid sequence selected from SEQ ID NO. 279, 280, 281 or 282. In one embodiment, the protein may include an amino acid sequence having at least 50%, 60%, 70%, 75%, 80%, 85%, 90%, 95%, 97%, 98%, 99%, or 100% sequence identity to an amino acid sequence selected from SEQ ID NO. 279, 280, 281 or 282.

In one embodiment, the application provides a multi-specific antibody-like protein having a variable region, wherein the variable region may comprise an amino acid sequence selected from SEQ ID NO. 301, 302, 303, 304, 305, or 306.

In one embodiment, the CDRs may have an affinity to CD3. In one embodiment, the CDR may have an equilibrium dissociation constant (KD) to CD3, wherein the KD is not more than 10 nM, 20nM, 30nM or 50nM, 100nM, 200nM, 300nM, 400nM or 500nM. In one embodiment, the CDR may include an amino acid sequence having at least 80% sequence identity to SEQ ID NO. 307, 308, 309, 310, 311 or 312.

In one embodiment, the protein having an affinity to CD3 includes CDR H1 having an amino acid sequence having at least 80% sequence identity to SEQ ID NO.307. In one embodiment, the protein having an affinity to CD3 includes CDR H2 having an amino acid sequence having at least 80% sequence identity to SEQ ID NO.308. In one embodiment, the protein having an affinity to CD3 includes CDR H3 having an amino acid sequence having at least 80% sequence identity to SEQ ID NO.309. In one embodiment, the protein having an affinity to CD3 includes CDR L1 having an amino acid sequence having at least 80% sequence identity to SEQ ID NO.310. In one embodiment, the protein having an affinity to CD3 includes CDR L2 having an amino acid sequence having at least 80% sequence identity to SEQ ID NO.311. In one embodiment, the protein having an affinity to CD3 includes CDR L3 having an amino acid sequence having at least 80% sequence identity to SEQ ID NO.312.

In one embodiment, the protein may comprise an amino acid sequence having at least 50%, 60%, 70%, 75%, 80%, 85%, 90%, 95%, 97%, 98%, 99%, or 100% sequence identity to an amino acid sequence selected from SEQ ID NO. 227-230, 231-234, 235-238, 239-242 and 291-294. In one embodiment, the multi-specific antibody-like protein may comprise an amino acid sequence having at least 50%, 60%, 70%, 75%, 80%, 85%, 90%, 95%, 97%, 98%, 99%, or 100% sequence identity to an amino acid sequence selected from SEQ ID NO. 227-230, 231-234, 235-238, 239-242 and 291-294.

In one embodiment, the multi-specific antibody-like protein may have a variable region wherein the variable region may comprise an amino acid sequence selected from SEQ ID 307, 308, 309, 310, 311 or 312.

In a further aspect, the application provides isolated nucleic acid sequences encoding the multi-specific antibody-like proteins, fragments, domains, regions as disclosed herein.

In a further aspect, the application provides expression vectors including the isolated nucleic acid sequences as disclosed herein.

In a further aspect, the application provides host cells including the isolated nucleic acid sequences as disclosed herein. In one embodiment, the host cell includes the expression vector as disclosed herein. In one embodiment, the host cell may be a prokaryotic cell or a eukaryotic cell.

In a further aspect, the application provides methods for producing the multi-specific antibody like proteins as disclosed herein. In one embodiment, the method includes the steps of culturing a host cell such that the DNA sequence encoding the multi-specific antibody-like protein is expressed, and purifying said multi-specific antibody. In one embodiment, the method includes the steps of culturing a host cell under conditions wherein said multi-specific antibody-like proteins are produced and recovering said antibody-like protein.

In a further aspect, the application provides immunoconjugates. In one embodiment, the immunoconjugate may include the multi-specific antibody-like proteins linked to a cytotoxic agent, an imaging agent, or both.

In a further aspect, the application provides pharmaceutical compositions. In one embodiment, the pharmaceutical composition may include the multi-specific antibody-like protein and a pharmaceutically acceptable carrier. In one embodiment, the pharmaceutical composition may further include radioisotope, radionuclide, a toxin, a therapeutic agent, a chemotherapeutic agent or a combination thereof. In one embodiment, the pharmaceutical composition may include the immunoconjugate as disclosed thereof and a pharmaceutically acceptable carrier.

In a further aspect, the application provides methods for treating or preventing a cancer, an autoimmune disease, or an infectious disease in a subject. In one embodiment, the method may include the steps of administering to the subject a pharmaceutical composition including a purified multi-specific antibody-like protein, an immunoconjugate, or a pharmaceutical composition as disclosed herein. In one embodiment, the method may further include co-administering an effective amount of a therapeutic agent. In one embodiment, the therapeutic agent may comprise an antibody, a chemotherapy agent, an enzyme, or a combination thereof.

In one embodiment, the subject is a human. In one embodiment, the subject is a mammal. In one embodiment, the subject is a chimpanzee. In one embodiment, the subject is a pet animal.

In a further aspect, the application provides a solution including an effective concentration of the multi-specific antibody-like protein, immunoconjugate, or pharmaceutical composition as disclosed herein. In one embodiment, the solution is blood plasma in a subject.

BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing and other features of this disclosure will become more fully apparent from the following description and appended claims, taken in conjunction with the accompanying drawings. Understanding that these drawings depict only several embodiments arranged in accordance with the disclosure and are, therefore, not to be considered limiting of its scope, the disclosure will be described with additional specificity and detail through use of the accompanying drawings, in which:

Figure 1 depicts the heterodimeric configuration of miniGNC molecules with five binding domains (D1-D5), of which the two monomers are encoded by Chain A (N-D1-D3/VH-CH1-CH2-CH3-D4-C) and Chain B (N-D2-D3/VL-CL-CH2-CH3-D5-C);

Figure 2 shows the dimerization of engineered miniGNC Chain A and Chain B with knockout mutations (KO) on either VH or Fc: **(2A)** by Protein-A purification to fractionate the mixture into the homodimer (a), the desired heterodimer (b), and the Chain B monomer (c); and **(2B)** by SDS-PAGE analysis of Protein-A fractionated homodimer (a), heterodimer (b), Chain B monomer (c), and Chain A monomer (d), at the expected sizes under non-reducing and reducing conditions;

Figure 3 shows the comparative potency of multi-specific miniGNC molecules mediated TDCC on BXP3 tumor cells by using penta-miniGNC (SI-75P6), tetra-miniGNC (SI-75E2), tri-miniGNC (SI-75X3), bi-miniGNC (SI-75X2), and mono-miniGNC (SI-75O2) molecules;

Figure 4 shows the comparative potency of miniGNC molecules mediated TDCC on BXP3 tumor cell line with EC50 values in the range of 0.1 to 5.5 pM;

FIGURE 5 shows the survival curves of TDCC assays measuring comparative potency of **(A)** multi-specific miniGNC molecules with stapled domains, including penta-miniGNC (SI-68P1), tetra-miniGNC (SI-68E2 and SI-68E1), and tri-miniGNC (SI-68x2), for killing pancreatic cancer cells (HPAFII) in TDCC assay, and **(B)** SI-68X1 against MCF-7 breast cancer cells; and

Figure 6 shows the functionality of multi-specific miniGNC molecules possessing a dimeric NKG2D receptor, including tri-specific (SI-49R25), tetra-specific (SI-49P_X), penta-specific (SI-49PM1 and SI-49P8) in killing breast cancer cells (MDA-MB-231) in TDCC assay.

DETAILED DESCRIPTION

In the following detailed description, reference is made to the accompanying drawings, which form a part hereof. In the drawings, similar symbols typically identify similar components, unless context dictates otherwise. The illustrative embodiments described in the detailed description, drawings, and claims are not meant to be limiting. Other embodiments may be utilized, and other changes may be made, without departing from the spirit or scope of the subject matter presented herein. It will be readily understood that the aspects of the present

disclosure, as generally described herein, and illustrated in the Figures, can be arranged, substituted, combined, separated, and designed in a wide variety of different configurations, all of which are explicitly contemplated herein.

The disclosure provides, among others, isolated antibodies, methods of making such antibodies, bispecific or multi-specific molecules, antibody-drug conjugates and/or immuno-conjugates composed from such antibodies or antigen binding fragments, pharmaceutical compositions containing the antibodies, bispecific or multi-specific molecules, antibody-drug conjugates and/or immuno-conjugates, the methods for making the molecules and compositions, and the methods for treating cancer using the molecules and compositions disclosed herein.

The present application discloses multi-specific Guidance and Navigation Control (GNC) antibodies in miniature configurations (miniGNC). A miniGNC platform molecule is an assembled heterodimer of two polypeptide chains characterized by the formation of a Fab-Hinge-Fc region core structure with one, two, three, or four additional binding domains (from D1 to D5), as elucidated in **Figure 1**. The two polypeptides may be configured, for Chain A (or Chain 1): N-D1-D3(VH)-CH1-Hinge-CH2-CH3-D4-C; and for Chain B (or chain 2): N-D2-D3(VL)-CL-Hinge-CH2-CH3-D5-C. The Fc domains of the two chains are engineered to contain complementary mutations, also known as “knobs-into-holes”, to enhance the formation of the heterodimer. A miniGNC platform molecule may have variable components. For example, the VH and VL of the Fab region may be replaced by a non-Fab dimer with or without binding specificity. An additional binding domain may be an antibody fragment, such as scFv or VHH, or a non-antibody structure, such as a ligand or a receptor. A miniGNC platform antibody may be bivalent, trivalent, tetravalent, or pentavalent with up to five distinct specificities, and retains the approximate size of a normal bivalent IgG antibody (tri-miniGNC Ab at 150 kD) or slightly larger (tetra-miniGNC Ab at 175 kD, and penta-miniGNC Ab at 200 kD).

The present application relates to methods of making and using miniGNC antibodies, in particular, penta-specific miniGNC antibodies (penta-miniGNC Ab). In general, GNC proteins, such as GNC antibodies, are characterized by comprising two moieties for engaging immune cells, such as activating T cells, while targeting tumor cells. Similar to GNC antibodies, miniGNC antibodies retain multiple antigen binding domains for engaging immune cells, such as anti-CD3 for T cell activation, anti-4-1BB for co-stimulation, and anti-PD-L1 for inhibiting immune checkpoint. To improve the efficacy of antibody therapy for treating cancer, miniGNC antibodies are designed to be structurally stable and compact while retaining the characteristic feature of two moieties in GNC antibodies. This improvement allows an additional binding specificity to a second tumor associated antigen on the same or different tumor cell. As compared to GNC antibodies, miniGNC contains an Fc domain that allows for FcRn-mediated recycling and half-life extension, as well as facile protein A-based purification. The Fc receptor-mediated immunity may be incorporated if desired. An Fc-containing miniGNC antibody is quite compact, which allows for better developability and increased tumor penetration. GNC antibodies are usually larger

than an IgG antibody due to increased number of antigen binding domains (AgBD), which provides spatial flexibility for binding to both a T cell and a tumor cell. On the other hand, miniGNC antibodies retains the same approximate size as human IgG antibodies calculated at approximately 110-130 kD for bi-specific; 120-160 for tri-specific; 130-190 kD for tetra-specific; 140-220 kD for penta-specific; as compared to 150 kD for human IgG. The incorporation of one or two scFvs onto each chain may reduce chain-pairing complications and improve stability while navigating through tumor microenvironment. With these characteristic features, GNC and miniGNC antibodies may be alternative of an efficacious antibody therapy for treating the same cancer, since the moiety for targeting tumor associated antigens remains the same, including but not limited to, EGFR, HER2, HER3, EGFRVIII, CD19, BCMA, CD20, CD33, CD123, CD22, CD30, ROR1, CEA, LMP1, LMP2A, Mesothelin, PSMA, EpCAM, glypican-3, gpA33, GD2, TROP2, NKG2D ligand, CD39, CLDN18.2, DLL3, HLA-G, FcRH5, GPRC5D, LIV-1, MUC1, CD138, CD70, uPAR, CD38.

The term “antibody” is used in the broadest sense and specifically covers single monoclonal antibodies (including agonist and antagonist antibodies), antibody compositions with polypeptidic specificity, as well as antibody fragments (e.g., Fab, F(ab')₂, and Fv), so long as they exhibit the desired biological activity. In some embodiments, the antibody may be monoclonal, polyclonal, chimeric, single chain, bispecific or bi-effective, human and humanized antibodies as well as active fragments thereof. Examples of active fragments of molecules that bind to known antigens include Fab, F(ab')₂, scFv and Fv fragments, including the products of a Fab immunoglobulin expression library and epitope-binding fragments of any of the antibodies and fragments mentioned above. In some embodiments, antibody may include immunoglobulin molecules and immunologically active portions of immunoglobulin molecules, i.e. molecules that contain a binding site that immunospecifically bind an antigen. The immunoglobulin can be of any type (IgG, IgM, IgD, IgE, IgA and IgY) or class (IgG1, IgG2, IgG3, IgG4, IgA1 and IgA2) or subclasses of immunoglobulin molecule. In one embodiment, the antibody may be whole antibodies and any antigen-binding fragment derived from the whole antibodies. A typical antibody refers to heterotetrameric protein comprising typically of two heavy (H) chains and two light (L) chains. Each heavy chain is comprised of a heavy chain variable domain (abbreviated as VH) and a heavy chain constant domain. Each light chain is comprised of a light chain variable domain (abbreviated as VL) and a light chain constant domain. The VH and VL regions can be further subdivided into domains of hypervariable complementarity determining regions (CDR), and more conserved regions called framework regions (FR). Each variable domain (either VH or VL) is typically composed of three CDRs and four FRs, arranged in the following order: FR1, CDR1, FR2, CDR2, FR3, CDR3, FR4 from amino-terminus to carboxy-terminus. Within the variable regions of the light and heavy chains there are binding regions that interacts with the antigen.

The term “monoclonal antibody” as used herein refers to an antibody obtained from a population of substantially homogeneous antibodies, i.e., the individual antibodies comprising the population are identical except for possible naturally occurring mutations that may be

present in minor amounts. Monoclonal antibodies are highly specific, being directed against a single antigenic site. Furthermore, in contrast to conventional (polyclonal) antibody preparations which typically include different antibodies directed against different determinants (epitopes), each monoclonal antibody is directed against a single determinant on the antigen. In addition to their specificity, the monoclonal antibodies are advantageous in that they are synthesized by the hybridoma culture, uncontaminated by other immunoglobulins. The modifier “monoclonal” indicates the character of the antibody as being obtained from a substantially homogeneous population of antibodies and is not to be construed as requiring production of the antibody by any particular method. For example, the monoclonal antibodies to be used in accordance with the present disclosure may be made by the hybridoma method first described by Kohler & Milstein, *Nature*, 256:495 (1975), or may be made by recombinant DNA methods (see, e.g., U.S. Pat. No. 4,816,567).

The monoclonal antibodies may include “chimeric” antibodies (immunoglobulins) in which a portion of the heavy and/or light chain is identical with or homologous to corresponding sequences in antibodies derived from a particular species or belonging to a particular antibody class or subclass, while the remainder of the chain(s) is identical with or homologous to corresponding sequences in antibodies derived from another species or belonging to another antibody class or subclass, as well as fragments of such antibodies, so long as they exhibit the desired biological activity (U.S. Pat. No. 4,816,567; and Morrison et al., *Proc. Natl. Acad. Sci. USA*, 81:6851-6855 [1984]).

Monoclonal antibodies can be produced using various methods including mouse hybridoma or phage display (see Siegel. *Transfus. Clin. Biol.* 9:15-22 (2002) for a review) or from molecular cloning of antibodies directly from primary B cells (see Tiller. *New Biotechnol.* 28:453-7 (2011)). In the present disclosure antibodies were created by methods of immunizing rabbits, mice, or llama in combination with subsequent strategies like hybridoma or display. Rabbits are known to create antibodies of high affinity, diversity and specificity (Weber et al. *Exp. Mol. Med.* 49:e305). Besides immunization of rabbits followed by B cell culture, other common strategies for antibody generation and discovery include immunization of other animals (e.g., mice, llamas) followed by hybridoma and/or display on phage, yeast, or mammalian cells; or display using synthetic variable gene libraries. This general method of antibody discovery is similar to that described in Seeber et al. *PLOS One*. 9:e86184 (2014).

The term “antigen- or epitope-binding portion or fragment” refers to fragments of an antibody that are capable of binding to an antigen. These fragments may be capable of the antigen-binding function and additional functions of the intact antibody. Examples of binding fragments include, but are not limited to a single-chain Fv fragment (scFv) consisting of the VL and VH domains of a single arm of an antibody connected in a single polypeptide chain by a synthetic linker or a Fab fragment which is a monovalent fragment consisting of the VL, constant light (CL), VH and constant heavy 1 (CH1) domains. Antibody fragments can be even smaller sub-

fragments and can consist of domains as small as a single CDR domain, in particular the CDR3 regions from either the VL and/or VH domains (for example see Beiboer et al., J. Mol. Biol. 296:833-49 (2000)). Antibody fragments are produced using conventional methods known to those skilled in the art. The antibody fragments can be screened for utility using the same techniques employed with intact antibodies.

The “antigen-or epitope-binding fragments” can be derived from an antibody of the present disclosure by a number of art-known techniques. For example, purified monoclonal antibodies can be cleaved with an enzyme, such as pepsin, and subjected to HPLC gel filtration. The appropriate fraction containing Fab fragments can then be collected and concentrated by membrane filtration and the like. For further description of general techniques for the isolation of active fragments of antibodies, see for example, Khaw, B. A. et al. J. Nucl. Med. 23:1011-1019 (1982); Rousseaux et al. Methods Enzymology, 121:663-69, Academic Press, 1986.

Papain digestion of antibodies produces two identical antigen binding fragments, called “Fab” fragments, each with a single antigen binding site, and a residual “Fc” fragment, whose name reflects its ability to crystallize readily. Pepsin treatment yields an $F(ab')_2$ fragment that has two antigen combining sites and is still capable of cross-linking antigen.

The Fab fragment may contain the constant domain of the light chain and the first constant domain (CH1) of the heavy chain. Fab' fragments differ from Fab fragments by the addition of a few residues at the carboxy terminus of the heavy chain CH1 domain including one or more cysteines from the antibody hinge region. Fab'-SH is the designation herein for Fab' in which the cysteine residue(s) of the constant domains bear a free thiol group. $F(ab')_2$ antibody fragments originally were produced as pairs of Fab' fragments which have hinge cysteines between them. Other, chemical couplings of antibody fragments are also known.

“Fv” is the minimum antibody fragment which contains a complete antigen recognition and binding site. This region consists of a dimer of one heavy and one light chain variable domain in tight, non-covalent association. It is in this configuration that the three CDRs of each variable domain interact to define an antigen binding site on the surface of the VH-VL dimer. Collectively, the six CDRs confer antigen binding specificity to the antibody. However, even a single variable domain (or half of an Fv comprising only three CDRs specific for an antigen) has the ability to recognize and bind antigen, although at a lower affinity than the entire binding site.

The “light chains” of antibodies (immunoglobulins) from any vertebrate species can be assigned to one of two clearly distinct types, called kappa (κ) and lambda (λ), based on the amino acid sequences of their constant domains.

Depending on the amino acid sequence of the constant domain of their heavy chains, immunoglobulins can be assigned to different classes. There are five major classes of immunoglobulins: IgA, IgD, IgE, IgG and IgM, and several of these may be further divided into subclasses (isotypes), e.g., IgG-1, IgG-2, IgG-3, and IgG-4; IgA-1 and IgA-2. The heavy chain constant domains that correspond to the different classes of immunoglobulins are called α , delta,

epsilon, γ , and μ , respectively. The subunit structures and three-dimensional configurations of different classes of immunoglobulins are well known.

A "humanized antibody" refers to a type of engineered antibody having its CDRs derived from a non-human donor immunoglobulin, the remaining immunoglobulin-derived parts of the molecule being derived from one (or more) human immunoglobulin(s). In addition, framework support residues may be altered to preserve binding affinity. Methods to obtain "humanized antibodies" are well known to those skilled in the art. (see, e.g., Queen et al., Proc. Natl Acad Sci USA, 86:10029-10032 (1989), Hodgson et al., Bio/Technology, 9:421 (1991)).

The terms "polypeptide", "peptide", and "protein", as used herein, are interchangeable and are defined to mean a biomolecule composed of amino acids linked by a peptide bond.

The terms "a", "an" and "the" as used herein are defined to mean "one or more" and include the plural unless the context is inappropriate.

By "isolated" is meant a biological molecule free from at least some of the components with which it naturally occurs. "Isolated," when used to describe the various polypeptides disclosed herein, means a polypeptide that has been identified and separated and/or recovered from a cell or cell culture from which it was expressed. Ordinarily, an isolated polypeptide will be prepared by at least one purification step. An "isolated antibody," refers to an antibody which is substantially free of other antibodies having different antigenic a binding specificity.

"Recombinant" means the antibodies are generated using recombinant nucleic acid techniques in exogeneous host cells.

The term "antigen" refers to an entity or fragment thereof which can induce an immune response in an organism, particularly an animal, more particularly a mammal including a human. The term includes immunogens and regions thereof responsible for antigenicity or antigenic determinants.

Also, as used herein, the term "immunogenic" refers to substances which elicit or enhance the production of antibodies, T-cells or other reactive immune cells directed against an immunogenic agent and contribute to an immune response in humans or animals. An immune response occurs when an individual produces sufficient antibodies, T-cells and other reactive immune cells against administered immunogenic compositions of the present disclosure to moderate or alleviate the disorder to be treated.

"Specific binding" or "specifically binds to" or is "specific for" a particular antigen or an epitope means binding that is measurably different from a non-specific interaction. Specific binding can be measured, for example, by determining binding of a molecule compared to binding of a control molecule, which generally is a molecule of similar structure that does not have binding activity. For example, specific binding can be determined by competition with a control molecule that is similar to the target.

The term "affinity" refers to a measure of the attraction between two polypeptides, such as antibody/antigen, receptor/ligand, etc. The intrinsic attraction between two polypeptides can

be expressed as the binding affinity equilibrium dissociation constant (KD) of a particular interaction. A KD binding affinity constant can be measured, e.g., by Bio-Layer Interferometry, where KD is the ratio of kdis (the dissociation rate constant) to kon (the association rate constant), as $KD = kdis/kon$.

Specific binding for a particular antigen or an epitope can be exhibited, for example, by an antibody having a KD for an antigen or epitope of at least about 10^{-4} M, at least about 10^{-5} M, at least about 10^{-6} M, at least about 10^{-7} M, at least about 10^{-8} M, at least about 10^{-9} M, alternatively at least about 10^{-10} M, at least about 10^{-11} M, at least about 10^{-12} M, or greater, where KD refers to the equilibrium dissociation constant of a particular antibody-antigen interaction. Typically, an antibody that specifically binds an antigen will have a KD that is 20-, 50-, 100-, 500-, 1000-, 5,000-, 10,000- or more times greater for a control molecule relative to the antigen or epitope.

Also, specific binding for a particular antigen or an epitope can be exhibited, for example, by an antibody having a KA or Ka for an antigen or epitope of at least 20-, 50-, 100-, 500-, 1000-, 5,000-, 10,000- or more times greater for the epitope relative to a control, where KA or Ka refers to an association rate of a particular antibody-antigen interaction.

“Homology” between two sequences is determined by sequence identity. If two sequences which are to be compared with each other differ in length, sequence identity preferably relates to the percentage of the nucleotide residues of the shorter sequence which are identical with the nucleotide residues of the longer sequence. Sequence identity can be determined conventionally with the use of computer programs. The deviations appearing in the comparison between a given sequence and the above-described sequences of the disclosure may be caused for instance by addition, deletion, substitution, insertion or recombination.

The present disclosure may be understood more readily by reference to the following detailed description of specific embodiments and examples included herein. Although the present disclosure has been described with reference to specific details of certain embodiments thereof, it is not intended that such details should be regarded as limitations upon the scope of the disclosure.

EXAMPLES

Example 1: Configuration of penta-specific miniGNC antibodies

The design of miniGNC antibodies relies on the co-expression and assembling of two polypeptide chains of a heterodimer between Chain A and Chain B (**Figure 1**). While Chain A may be a native heavy chain (HC), Chain B is a recombinant fusion peptide between the light chain and the Fc domain of HC. At the core of this antibody structure, there is a Fab region (VH-CH1/VL-CL) followed by the hinge and Fc region (CH2-CH3/CH2-CH3) of human IgG1. “Knobs-into-holes” mutations or other complementary sets of mutations may be introduced into the CH3 domains to destabilize homodimers and favor heterodimer formation (Ridgway JB, Presta LG, Carter P., Protein Eng 1996;9:617–21). The “hole” mutations in the CH3 domain of Chain A consist of

T366S, L368A, and Y470V, while the “knob” mutation in the CH3 domain of Chain B is T366W. The “knob” created by the T366W mutation on Chain B preferentially interacts with the “hole” created by the three mutations on Chain A. This preferential pairing may further stabilize the heterodimer while the non-covalent pairing of the Fab domain components (i.e. between VH-CH1 on Chain A and VL-Ck on Chain B) creates a functional Fab region. In other words, a functional D3 binding domain, such as a functional Fab region or a non-Fab receptor dimer, can only be created in Chain A-Chain B heterodimers. As compared to GNC antibodies, miniGNC antibodies also contain antibody fragments from native IgG (Fab, Fc) and other variable-sequence based structures, such as scFv and VHH, but are engineered to preferentially configure a Fab region-Hinge-Fc region structure after the formation of a heterodimer. The characteristic feature of miniGNC antibodies is the compactness of this engineered structure.

One or more structurally diversified antigen binding domain may be added to the two N-terminals and the two C-terminals of a miniGNC molecule as D1, D2 D4, or D5, thereby creating up to five binding specificities. Each of these added binding domains may be variable-sequence-based structures, such as scFv and VHH, or non-variable sequence-based structures, such as ligand and receptor. As elucidated in **Figure 1**, D1 and D2 refer to the binding domains linked to the N-terminals of Chain A and Chain B, respectively, whereas D4 and D5 refer to the binding domains linked to the C-terminals of Chain A and Chain B, respectively. Thus, the two polypeptides of a penta-specific miniGNC (penta-miniGNC) antibody may be configured as

Chain A: N-D1-D3(VH)-CH1-Hinge-CH2-CH3-D4-C; and

Chain B: N-D2-D3(VL)-CL-Hinge-CH2-CH3-D5-C;

where VL may be either $V\lambda$ or $V\kappa$ and CL may be either $C\lambda$ or $C\kappa$ as shown in **Figure 1**.

Depending on the number of binding domains and their binding specificities, the structural configuration of the penta-miniGNC antibody in **Figure 1** may be simplified by reducing one or more binding domains and becoming tetra-, tri-, and bi-miniGNC. For incidence, **Table 1** depicts the generation and characterization of a family of anti-CD3 miniGNC antibodies for optimizing their efficacy of targeting EGFR and HER3. In this case, each binding domain exerts one binding specificity. When two of its five binding domains target the same epitope of an antigen, i.e. the same binding specificity, the penta-miniGNC antibody becomes a tetra-specific penta-miniGNC antibody.

Example 2: Engineered core structure of miniGNC antibodies

To demonstrate that the configuration of miniGNC may be translated into stable and functional heterodimeric protein, a simplified asymmetric format was designed for evaluating the effect of configuration and mutations to the heterodimer formation of miniGNC molecules. Briefly, a single scFv (D1) is fused to the N-terminus of Chain A, whereas the Chain B does not have any added binding domain. In this way, the proportion of each species of dimerization between Chain A and Chain B may be distinguished by SDS-PAGE and SEC, as the predicted sizes

for a Chain A homodimer (not observed), a Chain B homodimer, and a Chain A and Chain B heterodimer are 100 kDa, 150 kDa, and 125 kDa, respectively) (**Figure 2**).

To engineer a strategy for selectively purifying the heterodimeric miniGNC molecule from a mixture, two amino acid residues in the CH3 domain (H435 and Y436) of the Chain B are substituted. In particular, the histidine (H435) is critical for the Chain B to bind to protein-A resins during the purification of therapeutic antibodies (Tustian et al., 2016), and the substitution of this amino acid or a ProA knockout mutation (ProAKO) terminates the protein-A binding. This strategy may allow separation of the heterodimer via selective elution from a protein-A column. As the protein-A column retains the heterodimer through its parental heavy chain binding site, the Chain B homodimer flows through as the Chain B lacks protein-A binding. The design of a ProAKO on the Chain B minimizes any possible issue of altering immunogenicity by amino acid substitutions of the protein-A binding site with residues taken from the homologous region in the IgG3 subclass. Although most of miniGNC molecules will predominantly incorporate the structure and sequence of IgG1 subtype, IgG3 has an overall similar structure to other IgG subclasses with some specific structural perturbations in binding to protein-A, protein-G and FcRn (neonatal Fc receptor). This difference is based on Fc sequence difference as revealed earlier where the presence of R435 (H435 in other subtypes) in IgG3 ablates its Fc interaction with protein-A. Hence, in representative miniGNC molecules, amino acids critical for protein-A binding on miniGNC Chain B (H435 and F436) have been mutated to the IgG3 counterpart sequences (R435 and Y436).

In the class of multi-specific miniGNC antibodies with an addition of scFv fused to the N terminal of Chain B, the interaction to protein-A binding is still possible if the scFv comes from VH3 family. VH3 encoded antibodies are known to interact with Staphylococcal Protein A (SPA) and residues in FR1, CDR2 and FR3 have been identified to be involved in SPA binding (Roben, et al., 1995), and structural data indicated that the replacement of a single involved region with the corresponding region from the nonbinding immunoglobulin ablates protein-A binding by VH3 encoded antibodies. Substitution of the amino acid R19 in FR1 was identified to be critical in binding to protein-A and was undertaken with the amino acid sequence (S19) from equivalent region in the VH4 family.

Four sets of miniGNC molecules (SEQ ID 1-16) with four different versions of chain B mutations (SEQ ID 3,7,11 and 15) embracing different combinations of ProAKO: H435R/Y436F (Fc) and R19S (VH) were purified and analyzed with analytical size exclusion chromatography. Only protein containing Chain B with both sets of mutations allowed complete removal of Chain B contaminants (**Figure 2A**). This VH3 protein A knockout mutation (R19S) together with Fc ProteinA knockout mutations (H435R, F436Y) on Chain B was incorporated in most of the multi-specific antibody formats and used to produce bi-, tri-, tetra- and penta-miniGNC molecules.

To demonstrate the feasibility of generating functional miniGNC proteins with alternative antibody isotypes, an example miniGNC containing IgG4 constant regions was generated. SI-

75XM9 (SEQ ID 297-300) is analogous to SI-75X5 (SEQ ID 1-4) bispecific miniGNC, except that the IgG1 CH1, hinge, and Fc were replaced with IgG4 CH1, hinge, and Fc. Notably, both proteins have the same binding domains (anti-HER3 domain in D2 and anti-CD3* domain in D3) and contain the same core structure and mutations (Knobs-into-Holes Fc mutation; R19S in anti-HER3 scFv; and H435R/Y436F mutations in Fc). As shown in **Table 8**, SI-75XM9 had comparable titer to SI-77X5, and had a significant 19% increase in the percent protein of interest (85.6% POI vs. 72.2% POI) after protein A purification, as assessed by analytical SEC. The reduction in high molecular weight species could be related to the shorter hinge length of IgG4 (12 amino acids instead of 15), which could reduce the propensity for association of higher-order oligomers. Thus, generation of miniGNC proteins with alternative antibody isotypes is not only possible, but can lead to more favorable properties such as decreased aggregation.

Example 3: Configuration of multi-specific miniGNC antibodies

To generate and characterize the first group of multi-specific miniGNC antibodies, a trio of moiety 1 binding domains, i.e. α CD3, α PD-L1, and α 4-1BB, and two moiety 2 binding domains against EGFR and HER3, respectively, were selected for comparison. As shown in **Table 1**, the group was subdivided into penta-miniGNC, tetra-miniGNC, tri-miniGNC, and bi-miniGNC groups. Of each subgroup, there was at least one miniGNC antibody having the CD3 binding from D3. The penta-miniGNC group includes SI-75P6 (SEQ ID 17, 19, with α EGFR from D3 position), SI-75P4 (SEQ ID 21, 23, with 41BBL, the ligand to 4-1BB receptor, at D4), SI-75P3 (SEQ ID 25, 27), and SI-75P9 (SEQ ID 29, 31, with α HER3 from D3). The tetra-miniGNC group have two antibodies, SI-75E1 (SEQ ID 33, 35) and SI-75E2 (SEQ ID 37, 39) comparing the effect in the presence and absence of either α 4-1BB or α PD-L1 domain. The tri-miniGNC group have three antibodies, SI-75X3 (SEQ ID 41, 43), SI-75X16 (SEQ ID 45, 47), and SI-75X18 (SEQ ID 49, 51) for comparing the two moiety 2 binding domains on either N- or C-terminus of the heterodimer. The bi-miniGNC group have three antibodies, SI-75X1 (SEQ ID 53, 55), SI-75X2 (SEQ ID 57, 59), and SI-75X5 (SEQ ID 1, 3), each of which has one moiety 1 binding domain and one moiety 2 binding domain.

The DNA encoding each member of the first group of miniGNC antibodies were cloned into vector pTT5, which were expressed with acceptable titers using ExpiCHO expression systems for 9 days. The miniGNC antibodies were purified with 5mL MabSelect protein-A columns followed by Size Exclusion using a highload 16/600 200 pg preparative SEC column on either an Akta Avant or Purifier system. SEC aggregates were analyzed using a waters HPLC linked to multi angle light scattering (MALS, Wyatt systems) to identify correct molecular weight by dn/dc calculated methods.

Example 4: Octet analysis of binding affinity

To assess the functionality of miniGNC antibodies, the binding affinity of each domain was determined by using Biolayer Interferometry (Octet 384 system). Octet analysis was used to

ensure that the selected miniGNC antibody retains the binding specificity and affinity to all their cognate antigens. Each miniGNC antibody was loaded onto AHC sensors for 180 seconds at 10 $\mu\text{g/ml}$, followed by a 60-second baseline step, a 180-second association step with 100 nM of commercially purchased human antigen, and a 360-second dissociation step. Samples for all steps were in Octet buffer (PBS containing 0.1% Tween 20 and 1% BSA). Fits were performed using a 1:1 binding model to extract affinity KD values. As shown in Table 1, the binding affinity for each binding domain, as measured by its KD, varies within an acceptable range. For moiety 1 binding, the KD for αCD3 domain may vary between 17.4 and 36.2 nM, for $\alpha\text{PD-L1}$ between 1 and 2.72 nM, and for $\alpha 4\text{-1BB}$ between 7.51 and 37.3 nM; and for moiety 2 binding, the KD for αEGFR varies between 5.56 and 11.1, and for αHER3 between 112.8 and 185 nM.

Example 5: Comparative potency of multi-specific miniGNC antibodies

The first group of multi-specific miniGNC antibodies was subjected to T-cell dependent cellular cytotoxicity (TDCC) assay for measuring the potency for killing cancer cells. With an αCD3 binding domain in all molecules, this group of miniGNC antibodies was equipped to engage T cells, redirect T-cell mediated cytotoxicity, and ultimately kill target cells.

A luminescence-based T-cell dependent cellular cytotoxicity (TDCC) assay was used to measure the extent of antibody-induced cellular cytotoxicity by quantification of cell viability via constitutive expression of luciferase. Luciferised BXPC3 human pancreatic cancer cell lines (ATCC, Manassas, VA) were cultured at 37°C, 5% CO₂ in RPMI (ATCC, Manassas, VA) medium with 10% heat-inactivated fetal bovine serum (Invitrogen, Waltham, MA). Cell viability was monitored with a Vi-CELL automated cell counter (Beckman Coulter, Pasadena, CA). Target cell surface expression was measured by flow cytometry. Human pancreatic cancer cells, BXPC3 cells, were co-cultured with human pan T-cells at an effector-to-target (E:T) ratio of 5:1 and antibodies were added with a 5-fold dilution series (0 – 30 nM). Using a Multidrop bulk liquid dispenser (BIOTEK, Winooski, VT), 500 cells per well of target cells (20 μL per well) and 25,00 cells per well of T-cells (20 μL / well) were plated sequentially into 384-well, white, flat-bottom, polystyrene TC-treated microplates (Corning, Corning, NY). Antibody dilutions were added (10 μL /well) and plates were incubated for 72 hrs at 37°C, 5% CO₂ before luminescence-based cell viability quantification. 20 μL of Bright-Glo (Promega) was added to wells, and luminescence corresponding to viability of tumor cells was determined using a CLARIOstar plate reader.

Data were fit to a sigmoidal function to calculate and list EC₅₀ values in Table 1 for comparison. Figure 3 shows the dose-dependent cell viability curves of miniGNC antibodies selected from a penta-miniGNC (SI-75P6), a tetra-miniGNC (SI-75E2), a tri-miniGNC (SI-75X3), a bi-miniGNC (SI-75X2), and a mono-miniGNC (SI-75O2) molecule. While all multi-specific miniGNC antibodies were capable of killing BXPC3 cells completely, both pent- and tetra-miniGNC antibodies steadily displayed high potency in the range of EC₅₀ in pM. In this regard, SI-75X1 was exceptionally potent. The data demonstrate the important roles of moiety 1 binding

domains, in particular, the α PD-L1 domain as an immune checkpoint inhibitor when targeting BXP3 cancer cells.

Example 6: Configuration of CD3 binding domain in miniGNC antibodies

By definition, a miniGNC antibody is capable of interfacing with at least one immune effector cell and one target cancer cell through the binding of its moiety 1 and 2 binding domains, respectively. Using the general scheme of miniGNC antibody configuration (Figure 1), it is possible that assigning two moiety 2 binding domains to D1 and D2 may lead to different efficacy from assigning them to D1 and D4 or D2 and D5 because the relative position of the targets on the cell surface is different, either on the top and bottom or on both sides. In this context, a second group of penta-miniGNC antibodies were configured and listed in Table 2. This group of miniGNC antibodies share the same binding specificities to CD3, CD19, EGFR, 4-1BB, and PD-L1, and the same binding domains at D2, D4, and D5. SI-68P13 (SEQ ID 69, 71) has α CD3 D3 domain, which is comparable to SI-75P3 of the first group except the difference in D2, i.e. α CD19 vs. α HER3, and to SI-68P17 (SEQ ID 73, 75) of the second group except the switch of α CD3 domain to D1. The rest of the second group of miniGNC antibodies share the same binding specificities from D1 (α CD3) and D3 (α EGFR). SI-68P17 (with the binding specificity to CD19, 4-1BB and PD-L1, respectively).

Anti-CD3 antibody plays a central role in T cell activation based immune therapy. Humanized antibody is desirable for the development of a therapeutic antibody. CD3 domain was incorporated into positions D1 and D3 to generate SI-68P17 (SEQ ID 73,75) and SI-68P13 (SEQ ID 69, 71) for testing positional effect. The anti-CD3 sequences in humanized framework 1 (CD3**), 2 (CD3***) 3 (CD****) and 4 (CD*****) were cloned into an expression cassette for producing SI-68P15 (SEQ ID NO. 77, 79), SI-68P18 (SEQ ID 81, 83), SI-68P19 (SEQ ID 85, 87), and SI-68P16 (SEQ ID 89, 91) (Table 2). Each expression cassette was transfected into 25 mL of ExpiCHO and expressed for 8 days followed by protein-A affinity chromatography for harvesting and purifying each penta-miniGNC antibody. The antibodies were produced with good titer (Table 2). Octet was used to verify that the penta-miniGNC antibodies containing different CD3 domains, can bind to human CD3, respectively (Table 2). Each penta-miniGNC antibody was loaded via AHC sensors at 10 μ g/ml and bound to a serial dilution (highest 200 nM, 1:2.5 dilutions) or a single 100-nM concentration of His-tagged human CD3. The resulting global fit to a 1:1 binding model demonstrated that the penta-GNC antibodies bind to CD3 with affinities in the low nanomolar range (Table 2).

To evaluate the effect of CD3-mediated T cell directed cytotoxicity on cancer cells, BXP3 tumor cell line was used as target. Serial dilutions (0 to 30 nM; 1 to 5 dilution factor) of antibodies were added to a white 384-well plate containing luciferized target cells and activated T cells (plated immediately before drug; effector:target = 5:1) in a total volume of 50 μ l. After an additional 72 hours, 20 μ l of Bright-Glo (Promega) was added to wells, and luminescence

corresponding to viability of luciferized tumor cells was determined using a CLARIOstar plate reader. Data were fit to a sigmoidal function to calculate EC50 values, which were in the range of 0.1 to 5.5 pM as shown by Figure 4 and listed in Table 2. The data demonstrate that there are certain degrees of flexibility in anti-CD3 positioning, configuration, and binding affinity.

Example 7. multi-specific miniGNC antibodies having VHH as binding domains

To multi-specific antibody platforms, such as GNC and miniGNC antibodies that contain multiple scFv domains, a potential issue is related to chain mispairing due to multiple VH and VL domains in the same molecule. Different VH and VL domains have different propensities to interact with each other. If binding domains of different specificity have superior interaction energy, then the wrong pairings may form when the protein assembles. As a result, none of the binding domains will bind their targeted antigens.

VHH refers to “antibodies” with single Ig domains, i.e. “heavy chain only”, also known as a single-domain antibody (sdAb) or a nanobody. The first single-domain antibodies were engineered from heavy-chain antibodies found in camelids, also known as V_HH fragment (VHH). VHH domains have been increasingly incorporated into antibody-based therapeutics due to several favorable properties. VHH domains may have increased stability and solubility compared to more traditionally used scFv domains. Whereas the VH/VL interface of traditional antibody variable regions is hydrophobic, the transient exposure of these surfaces can result in significant aggregation or precipitation. On the other hand, VHH domains have a naturally more hydrophilic surface and therefore can have superior solubility and stability properties. An obvious benefit of VHH domains over Fab or scFv domains is their small size. Where Fab domains are about 50 kDa and scFv domains are about 25 kDa, VHH domains are a very compact 12-15 kDa. The penta-miniGNC antibodies contain five binding domains (**Figure 1**). Incorporation of VHH domains instead of scFv domains may significantly decrease molecular size, and increase tumor penetration.

A third group of multi-specific miniGNC antibodies were created and configured to have VHH binding domains against EGFR and HER3 (Gottlin et al., 2009; Eliseev et al., 2018) (**Table 3**). Penta, Tri, and bi specific single domain variable regions (VHH) –incorporated miniGNC molecules were constructed and purified with reasonable titer. Binding activity of each domain of multi-specific miniGNCs : SI-75P5 (SEQ ID 93, 95), SI-75P8 (SEQ ID 97, 99), SI-75X4 (SEQ ID 101,103), SI-75X17 (SEQ ID 105, 107), SI-75X19 (SEQ ID 109, 111), SI-75X9 (SEQ ID 113-115), SI-75X11 (SEQ ID 117,119), SI-75X15 (SEQ ID 121,123)and SI-75X13 (SEQ ID 125, 127) were verified using Octet. AHC sensors were used to capture the GNC antibody at a concentration of 10 ug/ml for 180 seconds. After a 60-second baseline step, a single concentration of antigen was used for a 180-second association step. Antigens tested include 200 nM human EGFR (purified in-house), 100 nM human CD3 (Acro CDD-H52W1), 20 nM human PD-L1 (Acro PD1-H5229), 400 nM human 4-1BB (purified in-house), 200 nM human HER3 (Acro ER3-H5223). After association, a 420-second

dissociation step was used. The tabulated K_D values were calculated using a one-to-one binding model in ForteBio Data Analysis software version 11. The data demonstrated that all domains retained high affinity in the VHH-incorporated miniGNC platform.

T cell directed cytotoxicity on cancer cells, BXPC3 tumor Cell line was used as target. Serial dilutions (0 to 30 nM; 1 to 5 dilution factor) of antibodies were added to a white 384-well plate containing luciferized target cells and activated T cells (plated immediately before drug; effector: target = 5:1) in a total volume of 50 μ l. After an additional 72 hours, 20 μ l of Bright-Glo (Promega) was added to wells, and luminescence corresponding to viability of luciferized tumor cells was determined using a CLARIOstar plate reader. EC50 values are tabulated in **Table 3**.

Example 8. Engineered Fab (D3) domain for improved expression and protein quality.

A disulphide staple was optionally introduced in the VH-VL interface of the fab region (**Figure 5**). The purpose of this engineering was improving heterodimer pairing and stabilize the overall structure by the formation of a covalent disulphide bond (Weatherill et al., 2012) at the core-fab interface. Cysteines pair was optionally introduced to form disulphide bond at V_LA100 on Chain B and its corresponding V_HA44 on Chain A fab region.

A pair of penta-miniGNC antibodies (SI-38P11 and SI-76PM1) (**SEQ ID NO. 129 and 131; 133 and 135**) with identical binding specificities were created for analysing the effect of stapled variable region in the Fab. The Chain A of the two antibodies comprises α CD20 scFv at D1, α CD3 VH at D3 (VH Fab-CH1-Fc), and α 4-1BB at D4, whereas Chain B comprises α CD19 at D2, α CD3V_L at D3 (VKappa Fab CL-Fc) and α PD-L1 scFv at D5 (**Table 4**) according to the naming system in **Figure 1**. SI-76PM1 was constructed with an additional disulphide in the D3 (VH/VL Fab-CH1/CL-Fc) and SI-38P11 was constructed without any additional disulphide pairing in the VH/VL fab.

Penta-miniGNC antibody constructs with and without the disulphide staple at position D3 were expressed in ExpiCHO system. Construct with stapled D3 (SI-76PM1) was produced with significantly higher titer than SI-38P11. Both proteins were purified with 5mL MabSelect protein A columns followed by Size Exclusion using a hiload 16/600 200 μ g preparative SEC column on either an Akta Avant or Akta Pure Purifier system. SEC aggregates were analyzed using a waters HPLC linked to multi angle light scattering (MALS, Wyatt systems) to identify correct molecular weight by dn/dc calculated methods. With all of the analyses conducted as shown in **Table 4**, the disulfide bonded, i.e. "D3 stapled Fab", penta-miniGNC antibodies displayed 5% higher protein of interest production. Both molecules exhibited comparable antigen binding kinetics (**Table 4**).

Example 9. Multi-specific miniGNC antibodies with stapled scFv binding domains

The core structure of multi-specific miniGNC molecules were engineered to acquire several features in order to stabilize the heterodimer, including the covalently linked hinge and non-covalent and preferential interaction of "knobs-into-holes" by the CH3 domains in Fc region. While the stability and compactness are desirable, it remains unclear whether the closer

proximity of D1 and D2 or D3 and D4 may affect their stability and independent function. To maintain the stability and independence of each added binding domains, one option is to introduce a disulfide bond at V_L100 and V_H44 in each scFv domain, i.e. to staple each scFv domain. A disulfide bond between V_L and V_H may be used for all scFv domains to stabilize the overall structure. Alternatively, a disulphide bond may be introduced into at least one selected scFv domain at any position.

Four miniGNC antibodies have their D1 and D2 targeting EGFR and HER3 were grouped for measuring comparative potency of TDCC to the pancreatic cancer cells (HPAF-II), including tri-miniGNC (SI-68X2, SEQ ID NO. 137,139), tetra-miniGNC (SI-68E1, SEQ ID NO. 141, 143, and SI-68E2, SEQ ID NO. 145, 147), and penta-miniGNC (SI-68P1, SEQ ID NO. 149, 151) molecules. The moiety 1 binding specificities to 4-1BB and PD-L1 were the variable, whereas CD3 was the constant as D3 in the group interms of multispecificity. The expression construct encoding each of these four miniGNC antibodies was modified such that all scFv domains carrying a disulfide bond. The constructs were expressed individually in ExpiCHO system and each antibody was purified with reasonable titer. The binding kinetics to respective antigens were verified using Octet. AHC sensors were used to capture the miniGNC antibody at a concentration of 10 ug/ml for 180 seconds. After a 60-second baseline step, a single concentration of antigen was used for a 180-second association step. Antigens tested included 200 nM human EGFR (purified in-house), 100 nM human CD3 (Acro CDD-H52W1), 20 nM human PD-L1 (Acro PD1-H5229), 400 nM human 4-1BB (purified in-house), 200 nM human HER3 (Acro ER3-H5223). After association, a 420-second dissociation step was used. The tabulated K_D values were calculated using a one-to-one binding model in ForteBio Data Analysis software version 11. Analysed KD values for each miniGNC molecule with all stapled scFv domains, as shown in **Table 5**, were compared with KDs of monoclonal antibody controls for respective antigens as shown in **Table 6**. The binding kinetics data shows comparable binding affinity of each stapled scFv domain with its respective mAb or Fc-scFv control SI-1C3 (SEQ ID 181, 183) SI-1C7 (SEQ ID 185), SI-9C21 (SEQ ID 187, 189), SI-35SF11 (SEQ ID 191), SI-35SF11 (SEQ ID 193), SI-20C14 (SEQ ID 287 and 289) (**Table6**), suggesting that stapling one or more scFv domains seems to have little effect to the binding affinity.

To evaluate the effect of stapled scFv domains to the potency of the miniGNC antibody, T cell directed cytotoxicity (TDCC) assay was used and the target cells were HPAF -II, human a human pancreatic cancer cell line (ATCC, Manassas, VA). The surface expression of the target cells was validated by flow cytometry. Serial dilutions (0 to 30 nM; 1 to 5 dilution factor) of antibodies were added to a white 384-well plate containing target cells and activated T cells (plated immediately before drug; effector: target = 5:1) in a total volume of 50 ul. After an additional 72 hours, 20 ul of Bright-Glo (Promega) was added to wells, and luminescence corresponding to viability of luciferised tumor cells was determined using a CLARIOstar plate reader. Data were fit to a sigmoidal function to calculate EC50 values. As shown in **Figure 6 and Table 5**, the survival curves revealed that the potency of all four miniGNC antibodies was be

within the dose range of pM and with a tendency of the penta-miniGNC antibody exerting higher TDCC potency than that of tetra-miniGNC and tri-miniGNC antibodies. This observation again shows little effect by using stapled scFv domains.

Example 10. miniGNC having NKG2D receptor dimer as a binding domain

An increased number of binding specificities allows the GNC antibodies to bind not only T cells but also subsets of T cells, natural killer cells, and other types of immune cells, collectively known as moiety 1 binding domains/specificities (see Applicant's applications, WO/2019/005641 and WO2019191120, incorporated herein in its entirety). Some of moiety 1 binding specificities may replace the cellular response to or recognition of targeted cells. For example, NKG2D is a major recognition receptor for the detection and elimination of transformed and infected cells, as its ligands are induced during cellular stress, either as a result of viral infection or genomic stress, such as in cancer. In humans, NKG2D is expressed by NK cells, cells, and CD8+ T cells. The addition of NKG2D as a binding domain/specificity to the class of miniGNC antibodies may improve the cytotoxicity and efficacy of the antibody as a single multi-functional therapeutic agent.

In NK cells, NKG2D serves as an activating receptor, which itself can trigger cytotoxicity, whereas on CD8+ T cells the function of NKG2D is to send co-stimulatory signals to activate them. NKG2D forms a homodimer whose ectodomains serve for ligand binding. This feature qualifies NKG2D as a non-variable-sequence-based binding domain in a miniGNC format and other binding domains can be added to create a class of multi-specific NKG2D-miniGNC protein. In one miniGNC format, individual NKG2D monomer was incorporated in the D3 position on chain A and chain B which formed a dimeric NKG2D receptor on Fc dimerization. Thus, NKG2D can act as a receptor for the multi-specific miniGNC molecule to bind its ligand. In other miniGNC format, a NKG2D tandem repeat was designed by adding a (GxSy)_n spacer/linker between individual NKG2D monomers which homodimerizes and forms a functional dimeric receptor. This NKG2D tandem dimeric structure can be positioned in D1, D2, D4 or D5.

As listed in **Table 7**, this class includes mono-NKG2D-miniGNC (SI-49R26, SEQ ID NO. 153, 155), bi-miniGNC (SI-49R27, SEQ ID NO. 157, 159), tri-miniGNC (SI-49R25, SEQ ID NO. 161, 163), tetra-miniGNC (SI-49P_X, SEQ ID NO. 165, 167), and penta-mini-GNC molecules (SI49P8, SI-49P9, SEQ ID. NO. 169, 171, 177, and 179). A control penta-miniGNC, SI-49PM1 (SEQ ID NO. 173, 175), was created by switching the positions of D1 (α CD3) and D3 of SI-49P8, and the Octet binding affinity for either NKG2D or CD3 was not affected by this switch. While the binding affinity of other moiety 1 binding domains remained stable in this class of NKG2D-miniGNC molecules, the binding affinity of NKG2D was within 2-fold. Thus, the penta-miniGNC molecule possesses the binding function of NKG2D receptor for binding to NKG2D ligand.

To assess and compare the potency of TDCC of NKG2D-miniGNC molecules, tri-, tetra-, and penta-miniGNC molecules, SI-49R25, SI-49P_X, and SI-49P8 and SI-49PM1 were used to target MDA-MB-231 breast cancer cell line. Serial dilutions (0 to 30 nM; 1 to 5 dilution factor) of the miniGNC protein were added to a white 384-well plate containing luciferised MDA-MB-231 cells 24 hours prior and grown at 37 °C. Activated T cells were plated immediately before miniGNC molecules (effector: target = 15:1) in a total volume of 50 ul. After incubated for additional 72 hours, 20 ul of Bright-Glo (Promega) was added to wells, and the luminescence corresponding to viability of luciferised tumor cells was determined using a CLARIOstar plate reader. Data were fit to a sigmoidal function to calculate EC50 values (**Figure 7**). Based on the dose-viability curves, there were two groups, the tetra- and penta-miniGNC molecules were more potent than the tri-miniGNC molecule, SI-49R25. As listed in Table 7, the difference might result from the addition of α PD-L1. However, the EC50 value (59.3nM) of SI-49R25 should be considered as relatively potent. To the breast cancer cell line MDA-MB-231, CD19, which is a pan-B cell marker, is a non-participating tumor antigen. In this regard, SI-49R25 may be viewed as having two binding specificities to CD3 and NKG2D ligand. Thus, the data indicates that the incorporation of NKG2D receptor to different miniGNC antibody format contributes to the potency of TDCC. In a broader sense, the miniGNC antibody molecules can accommodate multiple binding specificities to modulate, cooperate, and direct an optimized immune response to targeted cells, such as cancer.

TABLES

Table 1. The configuration, production, binding affinity, and potency of multi-specific minGNC molecules when targeting EGFR and/or HER3-expressing pancreatic cancer cells (BXPC3).

Protein ID	D1 /KD (nM)	D2 /KD (nM)	D3 /KD (nM)	D4 /KD (nM)	D5 /KD (nM)	Titer (μg/ml)	EC50 (pM)
Penta-miniGNC							
SI-75P6	αCD3	αHER3	αEGFR	α4-1BB	αPDL-1	96.5	0.011
	36.2	138	5.56	37.3	1.45		
SI-75P4	αEGFR	αHER3	αCD3	α4-1BBL	αPDL-1	48.4	0.102
	10.4	150	22.7	115	2.72		
SI-75P3	αEGFR	αHER3	αCD3	α4-1BB	αPDL-1	39.4	1.300
	8.91	158	17.4	7.51	1		
SI-75P9	αEGFR	αCD3	αHER3	α4-1BB	αPDL-1	30	0.160
	11.1	20.1	140	21.2	2.7		
Tetra-miniGNC							
SI-75E1	αEGFR	αHER3	αCD3	α 4-1BB	--	30.2	5.800
	8.9	185	20.3	17.8	--		
SI-75E2	αEGFR	αHER3	αCD3	--	αPDL-1	172.3	0.085
	8.24	114	22.1	--	1.36		
Tri-miniGNC							
SI-75X3	αEGFR	αHER3	αCD3			193.5	5417
	8.47	146	18.2	--	--		
SI-75X16	αEGFR	αHER3	αCD3*			183.5	95540
	6.8	112.8	33.4	--	--		
SI-75X18			αCD3*	αEGFR	αHER3	38.2	6090
			47.3	2.72	93.75		
Bi-miniGNC							
SI-75X1	αEGFR		αCD3			246.1	0.71
	8.11		24	--	--		
SI-75X2		αHER3	αCD3			237.7	433.8
		162	27.8	--	--		
SI-75X5		αHER3	αCD3*			192.9	9,095
		139.2	44.4	--	--		

Table 2. The effect of the position and binding affinity of the CD3 binding domain on the potency of penta-minGNC molecules when targeting EGFR-expressing pancreatic cancer cells (BXPC3).

Protein ID	D1 /KD (nM)	D2 /KD (nM)	D3 /KD (nM)	D4 /KD (nM)	D5 /KD (nM)	Titer (μ g/ml)	EC50 (pM)
SI-68P13	α EGFR	α CD19	α CD3	α 4-1BB	α PD-L1	35.1	0.09
	5.64	4.33	25.9	14.8	1.04		
SI-68P17	α CD3	α CD19	α EGFR	α 4-1BB	α PD-L1	40	0.6
	15.82	5.05	5.38	26.8	2.72		
SI-68P15	α CD3**	α CD19	α EGFR	α 4-1BB	α PD-L1	58.1	0.16
	22.4	2.85	2.42	17.1	0.4		
SI-68P18	α CD3***	α CD19	α EGFR	α 4-1BB	α PD-L1	26	0.19
	14.46	1.35	8.18	7.51	1.00		
SI-68P19	α CD3****	α CD19	α EGFR	α 4-1BB	α PD-L1	28	0.12
	16.74	3.44	4.43	21.2	0.7		
SI-68P16	α CD3*****	α CD19	α EGFR	α 4-1BB	α PD-L1	72	5.5
	60.6	2.55	2.41	23.3	0.5		

Table 3. The effect of VHH single binding domain(s) on the potency of multi-specific minGNC molecules when targeting BXP3 tumor cells

Protein ID	D1 /KD (nM)	D2 /KD (nM)	D3 /KD (nM)	D4 /KD (nM)	D5 /KD (nM)	Titer (μg/ml)	EC50 (pM)
SI-75P5	αEGFR VHH	αHER3 VHH	αCD3	α4-1BB	αPD-L1	200.5	443
	23.5	4.68	26.1	23.3	3.25		
SI-75P8	αEGFR VHH	αHER3 VHH	αCD3*	αEGFR	αHER3	295	967468000
	6.22	0.786	44.1	6.22	0.786		
SI-75X4	αEGFR VHH	αHER3 VHH	αCD3	--	--	65.8	5766
	51.5	7.68	26.3	--	--		
SI-75X17	αEGFR VHH	αHER3 VHH	αCD3*	--	--	330	No killing
	14.8	4.58	68	--	--		
SI-75X19	--	--	αCD3*	αEGFR VHH	αHER3 VHH	223.4	1873
			64.4	20.6	10.52		
SI-75X9	--	αHER3 VHH	αCD3*	--	--	234	2584
	--	3.86	84.2	--	--		
SI-75X11	αEGFR VHH	--	αCD3*	--	--	214	564
	21.6	--	65.7	--	--		
SI-75X15	--	--	αCD3*	--	αHER3 VHH	161.3	27400
	--		38.08	--	13.7		
SI-75X13	--	--	αCD3*	αEGFR VHH	--	165.6	4858
		--	56	34--	--		

Table 4. The effect of “stapled” CD3 binding domain at D3 position on the production of multi-specific miniGNC molecules.

Protein ID	D1 /KD (nM)	D2 /KD (nM)	D3 (Stapled) /KD (nM)	D4 /KD (nM)	D5 /KD (nM)	Titer (μg/ml)	%POI
	αCD20	αCD19	αCD3	α4-1BB	αPD-L1		
SI-38P11	7.33	1.89	5.23 (No)	14.8	1.1	80	69
SI-76PM1	6.09	3.30	3.22 (Yes)	22.43	1.47	129	75

Table 5. Comparative potency of multi-specific miniGNC molecules with “stapled” scFv at all positions when targeting tumor cells.

Protein ID	D1 (Stapled) /KD (nM)	D2 (Stapled) /KD (nM)	D3 /KD (nM)	D4 (Stapled) /KD (nM)	D5 (Stapled) /KD (nM)	Titer (μg/ml)	EC50 (pM)
	αEGFR*	αHER3	αCD3	α4-1BB	αPD-L1		HPAF-II
SI-68X2	<0.001	114.4	24.3	--	--	88.9	6.6
SI-68E1	<0.001	138.8	26.2	12.7	--	114.8	3.6
SI-68E2	<0.001	120	28.4	--	0.4	67	1.3
SI-68P1	<0.001	93.4	24.3	9.8	0.6	87.1	1.02
	αCEA	αEGFR*	αCD3				MCF-7
SI-68X1	<0.001	<0.001	14.3	--	--	69	4.2
	αHER2	--	αCD3				
SI-68X3	NA		NA			57	NA

Table 6. Characterization of the unstapled versions of each domain (D1-D5) in mAb or scFv format to respective antigens.

Protein ID	Unstapled Controls	Domain Structure	Titer (μg/ml)	KD (nM)
SI-1C3	D1 = αEGFR*	mAb	44.9	<0.001
SI-1C7	D2= αHER3	Fc-scFv	290.7	136.5
SI-9C21	D3 = αCD3	mAb	252.1	26.3
SI-35FS11	D4 = α4-1BB	Fc-ScFv	7.67	14.9
SI-3FS11	D5 = αPD-L1	Fc-ScFv	18	0.94
SI-20C14	D1= αCEA	mAb	NA	<0.001

Table 7. The characterization of multi-specific minGNC molecules with NKG2D receptor dimer incorporated in miniGNC format and potency of tri, tetra and penta molecules in killing MDA-MB-231 tumor cells

Protein ID	D1 /KD (nM)	D2 /KD (nM)	D3 /KD (nM)	D4 /KD (nM)	D5 /KD (nM)	Titer (μg/ml)	EC50 (pM)
SI-49R26	--	--	NKG2D	--	--	28	n.a.
	--	--	17.7-	--	--		
SI-49R27	αCD3	--	NKG2D	--	--	38.6	n.a.
	32.2	--	16	--	--		
SI-49R25	αCD3	αCD19	NKG2D	--	--	50	59330
	34.50	7.62	12.80	--	--		
SI-49P_X	αCD3	αCD19	NKG2D	--	αPD-L1	8.8	119.5
	30.45	1.31	10.4	--	0.2		
SI-49P8	αCD3	αCD19	NKG2D	α4-1BB	αPD-L1	62.3	570.3
	36.3	2.98	24.3	7.71	1.08		
SI-49PM1	NKG2D	αCD19	αCD3	α4-1BB	αPD-L1	30.3	946.5
	24.49	5.5	30.2	2.74	2.23		
SI-49P9	αCD3	αCD19	NKG2D	41BBL	αPD-L1	28.9	n.a.
	29.80	6.4	27.2	112	2.01		

Table 8. The characterization of bispecific miniGNC molecules with different IgG subtypes in the Fc domain.

Protein	IgG subtype	D1	D2	D3	D4	D5	Titer (μg/ml)	%POI
SI-75X5	IgG1	-	αHER3	αCD3*	-	-	192.9	72.2
SI-75XM9	IgG4	-	αHER3	αCD3*	-	-	150.5	85.6

Table 9. Annotation of binding domains for their binding specificity, domain structure, origin, and sequence identification number (SEQ ID NO.).

Target	Binding Domain	Structure in miniGNC	Origin	SEQ ID NO.
CD20	Ritu	scFv	Rituximab	259-262
EGFR	EGFR	scFv and Fab	α EGFR H7	203-206
EGFR	EGFR*	scFv	Panitumumab	207-210
HER3	MM-111	scFv and Fab	MM-111	255-258
CD3	α CD3	scFv and Fab	284A10	219-222
CD3	α CD3*	scFv and Fab	283E3BSM	227-230
CD3	α CD3**	scFv	284A10 FR 1	231-234
CD3	α CD3***	scFv	284A10 FR 2	235-238
CD3	α CD3****	scFv	284A10 FR 3	239-242
CD3	α CD3*****	scFv	283E3FRS	291-294
PD-L1	α PD-L1	scFv	PL221G5	243-246
4-1BB	α 4-1BB	scFv	466F6	247-250
NKG2D Ligand	NKG2D	Receptor		253-254
4-1BB	41BBL	Ligand		251-252
EGFR	α EGFR VHH	VHH	VHH-122	263-264
HER3	α HER3 VHH	VHH	VHH BCD090-M2	265-266
CD19	huBU12	scFv	SI-huBU12 -H4,	215-218
CEA	α CEA-H1	scFv	CEA-656E11	279-282
HER2	Tras	scFv	Trastuzumab	284-285
		Human IgG1 heavy chain		313
		Human IgG4 light chain		314

SEQUENCE LISTING

Sample ID	Chain	SEQ ID NO.		Fc ProA KO (H435R/Y436F)	VH3 ProA KO (R19S)
		Protein	DNA		
SI-75X5	A	1	2	+	+
	B	3	4		
SI-75X6	A	5	6	+	-
	B	7	8		
SI-75X7	A	9	10	-	+
	B	11	12		
SI-75X8	A	13	14	-	-
	B	15	16		
SI-75P6	A	17	18	+	+
	B	19	20		
SI-75P4	A	21	22	+	+
	B	23	24		
SI-75P3	A	25	26	+	+
	B	27	28		
SI-75P9	A	29	30	+	+
	B	31	32		
SI-75E1	A	33	34	+	+
	B	35	36		
SI-75E2	A	37	38	+	+
	B	39	40		
SI-75X3	A	41	42	+	+
	B	43	44		
SI-75X16	A	45	46	+	+
	B	47	48		
SI-75X18	A	49	50	+	+
	B	51	52		
SI-75X1	A	53	54	+	NA
	B	55	56		
SI-75X2	A	57	58	+	+
	B	59	60		
SI-75O2	A	61	62	+	NA
	B	63	64		
SI-75O7	A	65	66	+	NA
	B	67	68		
SI-68P13	A	69	70	+	+
	B	71	72		
SI-68P17	A	73	74	+	+
	B	75	76		
SI-68P15	A	77	78	+	+
	B	79	80		
SI-68P18	A	81	82	+	+

	B	83	84		
SI-68P19	A	85	86	+	+
	B	87	88		
SI-68P16	A	89	90	+	+
	B	91	92		
SI-75P5	A	93	94	+	+
	B	95	96		
SI-75P8	A	97	98	+	+
	B	99	100		
SI-75X4	A	101	102	+	NA
	B	103	104		
SI-75X17	A	105	106	+	NA
	B	107	108		
SI-75X19	A	109	110	+	NA
	B	111	112		
SI-75X9	A	113	114	+	NA
	B	115	116		
SI-75X11	A	117	118	+	NA
	B	119	120		
SI-75X15	A	121	122	+	NA
	B	123	124		
SI-75X13	A	125	126	+	NA
	B	127	128		
SI-38P11	A	129	130	+	+
	B	131	132		
SI-76PM1	A	133	134	+	+
	B	135	136		
SI-68X1	A	195	196	-	-
	B	197	198		
SI-68X3	A	199	200	-	-
	B	201	202		
SI-68X2	A	137	138	-	-
	B	139	140		
SI-68E1	A	141	142	-	-
	B	143	144		
SI-68E2	A	145	146	-	-
	B	147	148		
SI-68P1	A	149	150	-	-
	B	151	152		
SI-49R26	A	153	154	+	NA
	B	155	156		

SI-49R27	A	157	158	+	NA
	B	159	160		
SI-49R25	A	161	162	-	-
	B	163	164		
SI-49P_X	A	165	166	-	-
	B	167	168		
SI-49P8	A	169	170	-	-
	B	171	172		
SI-49PM1	A	173	174	+	+
	B	175	176		
SI-49P9	A	177	178	-	-
	B	179	180		
SI-75XM9	A	297	298	+	+
	B	299	300		

Protein ID	Format	SEQ ID NO.	
		Protein	Protein
SI-1C3 HC	α EGFR mAb	181	182
SI-1C3 LC	α EGFR mAb	183	184
SI-1C7	α HER3 Fc-scFv	185	186
SI-9C21 HC	α CD3 mAb	187	188
SI-9C21 LC	α CD3 mAb	189	190
SI-35FS11	α 4-1BB Fc-scFv	191	192
SI-3FS11	α PD-L1 Fc-SCFv	193	194
SI-20C14 HC	α CEA mAb 656E11	287	288
SI-20C14 LC	α CEA mAb 656E11	289	290

Domains	Variable Chains	SEQ ID	
		Protein	DNA
α EGFR	VH	203	204
	VL	205	206
α EGFR *	VH	207	208
	VL	209	210
α EGFR * Stapled	VH	211	212
	VL	213	214
α CD19	VH	215	216
	VL	217	218
α CD3	VH	219	220
	VL	221	222
α CD3 Stapled	VH	223	224

	VL	225	226
α CD3 *	VH	227	228
	VL	229	230
α CD3 **	VH	231	232
	VL	233	234
α CD3 ***	VH	235	236
	VL	237	238
α CD3 ****	VH	239	240
	VL	241	242
α PDL1	VH	243	244
	VL	245	246
α 41BB	VH	247	248
	VL	249	250
41BBL	NA	251	252
NKG2D dimer	NA	253	254
α HER3	VH	255	256
	VL	257	258
α CD20	VH	259	260
	VL	261	262
EGFR VHH	VHH	263	264
HER3 VHH	VHH	265	266
α PDL1 Stapled	VH	267	268
	VL	269	270
α 41BB stapled	VH	271	272
	VL	273	274
α HER3 stapled	VH	275	276
	VL	277	278
α CEA	VH	279	280
	VL	281	282
α HER2 stapled	VH	283	284
	VL	285	286
α CD3 *****	VH	291	292
	VL	293	294
NKG2D monomer	NA	295	296

Antibody	Kabat CDR	AA SEQ ID
α CEA 656E11	CDR-H1	301
	CDR-H2	302
	CDR-H3	303
	CDR-L1	304

α CD3 283E3 (BSM/FRS)	CDR-L2	305
	CDR-L3	306
	CDR-H1	307
	CDR-H2	308
	CDR-H3	309
	CDR-L1	310
	CDR-L2	311
	CDR-L3	312

>Sequence ID 1: SI-75X5 Chain A Amino Acid Sequence

QVQLQESGGRLVQPGEPISLTCKTSGIDLSNAIGWVRQAPGKLEWIGVIFGSGNTYYASWAKGRFTISRSTSTVYVKMNSLRSE
DTAIYYCARGYSSDIWGQTLVTVSSASTKGPSVFPLAPSSKSTSGGTAAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSS
GLYSLSSVTVPSSSLGTQTYICNVNHKPSNTKVDKRVPEKSCDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVTCV
VVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTI SKAKGQPREPQV
YTLPPSRDELTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLVSKLTVDKSRWQQGNVFSCSVMHEALHN
HYTQKSLSLSPG

>Sequence ID 2: SI-75X5 Chain A Nucleotide Sequence

CAAGTGCAGTTGCAAGAAAGTGGTGGTAGACTGGTTCAGCCTGGTGAACCCCTGTCACTGACGTGTAAAACAAGCGGCATTGATCT
GTCCCTTAACGCCATCGGATGGGTCCGACAGGCCCCAGGAAAAGGTCTGGAGTGGATCGGAGTTATCTTCGGGAGCGGCAATACAT
ACTACGCAAGCTGGGCAAAAGGGCGATTTACGATATCACGGAGCACCTCTACAGTTTATTTGAAAATGAACTCCCTCCGGTCCGAG
GATACCGCGATATATTAAGTGTGCCAGAGGGGGGTACTCCTCTGATATCTGGGGGAGGGTACACTGGTTACAGTTTCATCCGCTAG
CACCAGAGGGCCCTCTGTGTTCCCTCTGGCCCCCTCCTCCAAGAGCACCTCTGGAGGCACTGCTGCCCTGGGCTGCCTGGTGAAGG
ACTACTTCCCAGAGCCTGTGACTGTGCTGGAACCTCTGGAGCCCTGACCTCTGGAGTGCACACCTCCCTGCTGTGCTGCAGAGC
TCTGGCCTCTACAGCCTGTCTCTGTGGTCACTGTGCCCTCCTCCAGCCTGGGCACCCAGACCTACATCTGCAATGTGAACCACAA
GCCCTCCAACACCAAGGTGGACAAGAGAGTGGAGCCCAAGTCTGTGACAAGACCCACACCTGCCCTCCCTGCCAGCCCCAGAGG
CTGCTGGAGGCCCTCTGTGTTCCCTCTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACCCAGAAGTCACTGTGTG
GTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCACTGAGTGTGGATGGAGTGGAGGTGCACAATGCCAAGACCAAGCC
CAGAGAAGAGCAGTACAACCTCCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGAATGGGAAGGAGTACA
AGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAGCCCCAGGTC
TACACCCTGCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTCTGTGCTGTGAAAGGCTTCTACCCAGTGCAT
TGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACCACTACAGACACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTTCC
TGGTCTCCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTGATGCATGAGGCCCTGCACAAC
CACTACACCAGAAAGCCTGAGCCTGAGCCCTGGA

>Sequence ID 3: SI-75X5 Chain B Amino Acid Sequence

QSALTQPASVSGSPGQSITISCTGTSDDVGGYNFVSWYQQHPGKAPKLMIDVSDRPSGVSDRFSGSKSGNTASLIISGLQADDEA
DYCCSSYSSSTHVFGGGKVTVLGGGSGGGGSGGGGSGGGGSGVQLQESGGGLVKGGLSLSCAASGFTFSSYWMWVRQAP
GKGLEWVANINRDGSASYVDSVKGRFTISRDDAKNSLYLQMNLSRAEDTAVYVCARDRGVGYFDLWGRGTLTVSSSGGGGSGGGG
SDPQLTQSPSSLSATVGRVTINQSSQSVAKNNNLAWFQQKPGKPKLLIYASSTLAAGVPSRFSGSGGTQFTLTITRVQSEDF
ATYYCSARDSGNIQSFSGGTRVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPRKAVQWKVDNALQSGNSQESVTEQDS
KDSYSLSSLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGECGGDKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPE
VTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTI SKAKGQPR
EPQVYTLPPSRDELTKNQVSLVCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLVSKLTVDKSRWQQGNVFSCSVMHE
ALHNRTQKSLSLSPG

>Sequence ID 4: SI-75X5 Chain B Nucleotide Sequence

CAGTCTGCCCTGACTCAGCCTGCCCTCCGTGTCTGGGTCTCCTGGACAGTGCATCACCATCTCCTGCACTGGAACAGCAGTGACGT
TGGTGGTTATACTTTGTCTCCTGGTACCAACAACACCCAGGCAAGGCCCAAACTCATGATCTATGATGTCACTGATCGGCCCT
CAGGGGTGTCTGATCGCTTCTCCGCTCCAAGTCTGGCAACACGGCCTCCCTGATCATCTCTGGCCTCCAGGCTGACGACGAGGCT
GATTATTACTGCAGCTCATATGGGAGCAGCAGCACTCATGTGATTTTCGGCGGAGGGACCAAGGTGACCGTCTTAGGCGGTGGCGG
TAGTGGGGGAGGCGGTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCACAGGTGCAATTGCAGGAGTCGGGGGAGGCGCTGGTCA
AGCCTGGAGGGTCCCTGAGCCTCTCCTGTGCAGCCTCTGGATTACCTTTAGTAGTTATTGGATGAGCTGGGTCCGCCAGGCTCCA
GGGAAGGGGCTGGAGTGGGTGGCCAACATAAACCGCGATGGAAGTGCAGGTTACTATGTGGAAGTCTGTGAAGGGCCGATTACCAT
CTCCAGAGACGACGCCAAGAACTCACTGTATCTGCAATGAACAGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAG

ATCGTGGGGTGGGCTACTTCGATCTCTGGGGCCGTGGCACCCCTGGTCACCGTCTCGAGTGGCGGTGGAGGGTCCGGCGGTGGTGGGA
TCAGATCCTCAATTGACCCAGTCCCTAGTAGCCTTTCTGCAACCGTGGGCCAGAGGGTAACAATCAATTGCCAGTCAAGCCAGTC
CGTAGCGAAGAATAAATAATTTGGCATGGTTCCAACAAAAACCGGGTAACCTCCTAACTCCTTATCTACTCAGCTTCAACCCCTTG
CCGCCGGTGTGCCAGCCGGTCTCAGGCTCAGGTTCCGGGACTCAATTTACACTTACCATCACTCGCGTCCAAAGTGAGGATTTT
GCAACCTACTATTGTTCTGCACGGGATTCCGGGAACATACAGTCCTTTGGGGGTGGAACCTCGGGTGGAGATAAAACGTACGGTGGC
TGCCCCCTCTGTGTTTCATCTTCCACCCAGTGATGAGCAGCTGAAGAGTGGCACAGCCCTCTGTGGTGTGCCTGCTCAACAACTTCT
ACCCAGAGAGACCCAGGTGCAGTGGAGGTGGACAATGCCCTGCAGAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAGGACAGC
AAGGACAGCACCTACAGCCTGTCTCCACCCGTGCCCTGTCCAAGGCTGACTATGAGAAGCACAGGTGTATGCCTGTGAGGTGAC
CCACAGGGGCTGAGCAGCCCTGTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTCCCTGCC
CAGCCCCAGAAGCTCTGGAGGCCCTCTGTGTTCTCTTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACCCAGAA
GTCACCTGTGTGGTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGTGACAATGC
CAAGACCAAGCCAGAGAAGAGCAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGAATG
GGAAGGAGTACAAGTGTGCTGTGTCCAACAGGCCCTGCCCTGCCCCATTGAGAGACCATCTCCAAGGCCAAGGGCCAGCCAGAG
GAGCCCCAGGTCTACACCTGCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGCCTGGTGAAAGGCTTCTA
CCCCAGTGACATTGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACTACAAGACCAACCCCTCCTGTGCTGGACTCTGATG
GCTCCTTCTTCTGTACAGCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTGATGCATGAG
GCCCTGCACAACCGCTTCAACCCAGAAGAGCCTGAGCCTGAGCCCTGGA

>Sequence ID 5: SI-75X6 Chain A Amino Acid Sequence

QVQLQESGGRLVQPGEPISLTCKTSGIDLSSNAIGWVRQAPGKLEWIGVIFGSGNTYYASWAKGRFTISRSTSTVYLKMNLSLRSE
DTAIYYCARGGYSSDIWQQTLVTVSSASTKGPSVFPLAPSSKSTSGGTAAALGLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSS
SGLYSLSSVTVPPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSKDKHTHTCPPEAPEAAGGPSVFLFPPKPKDLMISRTEPVTCV
VVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPREPQV
YTLPPSRDELTKNQVLSLCAVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFSCSVMHEALHN
HYTKSLSLSPG

>Sequence ID 6: SI-75X6 Chain A Nucleotide Sequence

CAAGTGCAGTTGCAAGAAAGTGGTGGTAGACTGGTTCAGCCTGGTGAACCCCTTGTCACTGACGTGTAAACAAGCGGCATTGATCT
GTCTCTTAACGCCATCGGATGGGTCCGACAGGCCCCAGGAAAAGGTCTGGAGTGGATCGGAGTTATCTTCCGGGAGCGGCAATACAT
ACTACGCAAGCTGGGCAAAAGGGCGATTACGATATCACGGAGCACCTCTACAGTTTATTTGAAAATGAACTCCCTCCGGTCCGAG
GATACCGCGATATATTACTGTGCCAGAGGGGGTACTCCTCTGATATCTGGGGGACAGGTACACTGGTTACAGTTTCATCCGCTAG
CACCAAAGGCCCCCTCTGTGTTCCCTCTGGCCCCCTCTCCAAGAGCACCTCTGGAGGCACTGCTGCCCTGGGCTGCCTGGTGAAGG
ACTACTTCCCAGAGCCTGTGACTGTGCTGGAACCTCTGGAGCCCTGACCTCTGGAGTGCACACCTTCCCTGCTGTGCTGCAGAGC
TCTGGCCTCTACAGCCTGTCTCTGTGGTCACTGTGCCCTCTCCAGCCTGGGCACCCAGACCTACATCTGCAATGTGAACCACAA
GCCCTCCAACACCAAGGTGGACAAGAGAGTGGAGCCCAAGTCTGTGACAAGACCCACACCTGCCCTCCCTGCCAGCCCCAGAGG
CTGCTGGAGGCCCTCTGTGTTCTCTTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACCCAGAGTCACTGTGTG
GTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGGTGCACAATGCCAAGACCAAGCC
CAGAGAAGAGCAGTACAACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGAATGGGAAGGAGTACA
AGTGTGCTGTGCTCCAACCAAGGCCCTGCCCTGCCCCATTGAGAAGGACCATCTCCAAGGCCAAGGGCCAGCCCAAGAGCCCCAGGT
TACACCTGCCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTCTGTGCTGTGAAAGGCTTCTACCCAGTGACAT
TGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACTACAAGACCAACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTTCC
TGGTCTCCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTGATGCATGAGGCCCTGCACAAC
CACTACACCCAGAAGAGCCTGAGCCTGAGCCCTGGA

>Sequence ID 7: SI-75X6 Chain B Amino Acid Sequence

QSALTQPASVSGSPGQSITISCTGTSSDVGGYNFVSWYQQHPGKAPKLMIDVSDRPSGVSDRFSGSKSGNTASLIISGLQADDEA
DYCYSSYSSSTHIVFGGKTQVTVLGGGSGGGGSGGGGSGGGGQVQLQESGGGLVKGPGSLRLSAAAGSFTSSYWMSWVRQAP
GKGLEWVANINRDGSAASYVDSVKGRFTISRDDAKNSLYLQMNLSRAEDTAVYYCARDRGVGYFDLWGRGLTVTVSSGGGGSGGGG
SDPQLTQSPSSLSATVGRVTINCQSSQSVAKNNNLAWFQQKPGKPKLLIYASSTLAAGVPSRFSGSGSGTQFTLTITRVQSEDF
ATYYCSARDSGNIQSFSGGTRVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDS
KDSYISLSTLTLSKADYEKHKVYACEVTHQGLSPVTKSFNRGECGGDKHTHTCPPEAPEAAGGPSVFLFPPKPKDLMISRTE
VTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPR
EPQVYTLPPSRDELTKNQVLSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFSCSVMHE
ALHNRFTQKSLSLSPG

>Sequence ID 8: SI-75X6 Chain B Nucleotide Sequence

CAGTCTGCCCTGACTCAGCCTGCCCTCCGTGTCTGGGTCTCCTGGACAGTCGATCACCATCTCCTGCACTGGAACCAAGCAGTGACGT
TGGTGGTTATAACTTTGTCTCCTGGTACCAACAACACCCAGGCCAAAGCCCCAACTCATGATCTATGATGTGAGTGATCGGCCCT
CAGGGGTGTCTGATCGCTTCTCCGGCTCCAAGTCTGGCAACACGGCCTCCCTGATCATCTCTGGCCTCCAGGCTGACGACGAGGCT
GATTATTACTGCAGCTCATATGGGAGCAGCAGCACTCATGTGATTTTCGGCGGAGGGACCAAGGTGACCGTCTTAGCGGTGGCGG
TAGTGGGGGAGGCGGTTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCACAGGTGCAATTGCAGGAGTCCGGGGGAGGCTGGTCA
AGCCTGGAGGTCCTGAGACTCTCTGTGCAGCCTCTGGATTCACCTTAGTAGTTATTTGGATGAGCTGGGTCGCCAGGCTCCA
GGGAAGGGGCTGGAGTGGGTGGCCAACATAAACCGCATGGAAGTGCAGTTACTATGTGGACTCTGTGAAGGGCCGATTACCAT

CTCCAGAGACGACGCCAAGAACTCACTGTATCTGCAATGAACAGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAG
ATCGTGGGGTGGGCTACTTCGATCTCTGGGGCCGTGGCACCCCTGGTCACCGTCTCGAGTGGCGGTGGAGGGTCCGGCGGTGGTGGG
TCAGATCCTCAATTGACCCAGTCCCCTAGTAGCCTTTCTGCAACCGTGGGCCAGAGGGTAACAATCAATTGCCAGTCAAGCCAGTTC
CGTAGCGAAGAATAATAATTGGCATGGTTCCAAACAAAACCCGGTAAACCTCCTAAACTCCTTATCTACTCAGCTTCACCCCTTG
CCGCGGGTGTGCCAGCCGGTTCTCAGGCTCAGGTTCCGGGACTCAATTTACACTTACCATCACTCGCGTCCAAAGTGAGGATTTT
GCAACCTACTATTGTTCTGCACGGGATTCCGGGAACATACAGTCCCTTTGGGGTGGAACTCGGGTGGAGATAAAACGTACGGTGGC
TGCCCCCTCTGTGTTTCATCTCCACCCAGTGATGAGCAGTGGAAGAGTGGCAGCCTCTGTGGTGTGCTCAACAACTTCT
ACCCAGAGAAAGCCAGGTGAGTGGAGGTGGACAATGCCCTGCAGAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAGGACAGC
AAGGACAGCACCTACAGCCTGTCTCCACCTGACCCTGTCCAAGGCTGACTATGAGAAGCACAGGTGTATGCCTGTGAGGTGAC
CCACCAGGGCTGACAGCCTGTGACCAAGAGCTTCAACCGAGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTCCCTGCC
CAGCCCCAGAAGCTGTGGAGGCCCTCTGTGTTCTCTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACCCAGAA
GTCACCTGTGTGGTGGTGGATGTGTTCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGTGGACAATGC
CAAGACCAAGCCAGAGAAGAGCAGTACAAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCAGGACTGGTGAATG
GGAAGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGCCCAAGGGCCAGCCCA
GAGCCCCAGGTCTACACCTGCCTCCCTCCAGAGATGAGTGCACCAAGAACAGGTGTCCCTGTGGTGGTGAAGGCTTCTA
CCCCAGTGACATTGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACACTACAAGACCACCCCTCTGTGCTGGACTCTGATG
GCTCCTTCTTCTGTACAGCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCTGCTGTGCATGCATGAG
GCCCTGCACAACCGCTTACCCAGAGAGCCTGAGCCTGAGCCCTGGA

>Sequence ID 9: SI-75X7 Chain A Amino Acid Sequence

QVQLQESGGRLVQPGEPISLTCKTSGIDLSSNAIGWVRQAPGKLEWIGVIFGSGNTYYASWAKGRFTISRSTSTVYLMNLSRSE
DTAIYYCARGGYSSDIWQGTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQS
SGLYSLSSVTVTPSSSLGTQTYICNVNHKPSNTKVDKRVKPKDHTCPPEAPEAAGGPSVFLFPPKPKDTLMIISRTPEVTCV
VVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTIISKAKGQPREPQV
YTLPPSRDELTKNQVSLSCAVKGFPYSDIAVEWESNGQPENNYKTPPVLDSDGSFFFLVSKLTVDKSRWQQGNVFCSCVMHEALHN
HYTQKSLSLSPG

>Sequence ID 10: SI-75X7 Chain A Nucleotide Sequence

CAAGTGCAGTGCAGAAAGTGGTGGTAGACTGGTTACGCTGGTGAACCCCTGTCACTGACGTGTAAAACAAGCGGCATTGATCT
GTCCTCTAACGCCATCCGATGGGTCCGACAGGCCCCAGGAAAAGGTCTGGAGTGGATCGGAGTTATCTTCGGGAGCGGCAATACAT
ACTACGCAAGCTGGGCAAAAGGGCGATTACGATATCACGGAGCACCTCTACAGTTTATTTGAAAATGAACTCCCTCCGGTCCGAG
GATACCGGATATATTACTGTGCCAGAGGGGGTACTCCTCTGATATCTGGGGCAGGGTACACTGGTTACAGTTTCATCCGCTAG
CACCAAAGGCCCTCTGTGTTCCCTCTGGCCCCCTCCTCCAAGAGCACCTCTGGAGGCACTGCTGCCCTGGGCTGCCTGGTGAAGG
ACTACTTCCAGAGCCTGTGACTGTGCTCTGGAAGTCTGGAGCCCTGACCTCTGGAGTGCACACCTTCCCTGCTGTGCTGCAGAGC
TCTGGCCTCTACAGCCTGTCTCTGTGGTCACTGTGCCCTCCTCCAGCCTGGGCACCCAGACCTACATCTGCAATGTGAACCAAA
GCCCTCCAACACCAAGGTGGACAAGAGAGTGGAGCCCAAGTCTGTGACAAGACCCACACCTGCCCTCCCTGCCAGCCCCAGAGG
CTGCTGGAGGCCCTCTGTGTTCTCTTCCCTCCCAAGCCCAAGGACACCTGATGATCTCCAGGACCCAGAAAGTCACTGTGTG
GTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGGTGCACAATGCCAAGACCAAGCC
CAGAGAAGAGCAGTACAACTCCACCTACCCAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGAATGGGAAGGAGTACA
AGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGCCCAAGGGCCAGCCAGAGAGCCCCAGGTCT
TACACCTGCTCCCTCCAGAGATGAGCTGACCAAGAACAGGTGTCCCTGTCTGTGCTGTGAAAGGCTTCTACCCAGTGCAT
TGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACACTACAAGACCACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTTCC
TGGTCTCCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCTGCTGTGATGCATGAGGCCCTGCACAAC
CACTACACCCAGAAGAGCCTGAGCCTGAGCCCTGGA

>Sequence ID 11: SI-75X7 Chain B Amino Acid Sequence

QSALTQPASVSGSPGQSITISCTGTSSDVGGYNFVSWYQQHPGKAPKLMIIYDVSDRPSGVSDRFSGSKSGNTASLIISGLQADDEA
DYCYSSYSSSTHVIFFGGTKVTVLGGGSGGGGSGGGGSGGGGSGVQLQESGGGLVKGPGSLSLSCAASGFTFSSYWMSWVRQAP
GKGLEWVANINRDGSASYVDSVKGRFTISRDDAKNSLYLQMNLSRAEDTAVYYCARDRGVGYFDLWGRGLTVTVSSGGGSGGGG
SDPQLTQSPSSLSATVQQRVTINCQSSQSVAKNNNLAWFQQKPKPKLLIYASSTLAAGVPSRFSGSGSGTQFTLTIIRVQSEDF
ATYYCSARDSGNIQSFGGGRVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDS
KDSTYSLSTLTLSKADYKHKVYACEVTHQGLSPVTKSFNRGECGGDKHTHTCPPEAPEAAGGPSVFLFPPKPKDTLMIISRTPE
VTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTIISKAKGQPR
ETQVYTLPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFFLVSKLTVDKSRWQQGNVFCSCVMHE
ALHNHYTQKSLSLSPG

>Sequence ID 12: SI-75X7 Chain B Amino Acid Sequence

CAGTCTGCCCTGACTCAGCCTGCCTCCGTGTCTGGGTCTCCTGGACAGTCGATCACCATCTCCTGCACTGGAACAGCAGTGACGT
TGGTGGTTATACTTTGTCTCCTGGTACCAACAACACCCAGGCAAGGCCCCAACTCATGATCTATGATGTGAGTGTGCGGCCCT
CAGGGGTGTCTGATCGCTTCTCCGGCTCCAAGTCTGGCAACACGGCCTCCCTGATCATCTCTGGCCTCCAGGCTGACGACGAGGCT
GATTATTACTGCAGCTCATATGGGAGCAGCAGCACTCATGTGATTTTCGGCGGAGGGACCAAGGTGACCGTCTTAGGCGGTGGCGG
TAGTGGGGGAGGCGGTCTGGCGGGAGGGTCCGGCGGTGGAGGATACAGGTGCAATTGCAGAGTCCGGGGGAGGCTTGGTCA
AGCCTGGAGGGTCCCTGAGCCTCTCCTGTGAGCCTCTGGATTACCTTTAGTAGTTATTGGATGAGCTGGGTCCGCCAGGCTCCA

GGGAAGGGGCTGGAGTGGGTGGCCAACATAAACCCGCGATGGAAGTGCAGAGTTACTATGTGGACTCTGTGAAGGGCCGATTACCAT
 CTCCAGAGACGACGCCAAGAACTCACTGTATCTGCAAAATGAACAGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAG
 ATCGTGGGGTGGGCTACTTCGATCTCTGGGGCCGTGGCACCCCTGGTACCCTCTCGAGTGGCGGTGGAGGGTCCGGCGGTGGTGA
 TCAGATCCTCAATTGACCCAGTCCCTAGTAGCCTTTCTGCAACCGTGGGCCAGAGGGTAACAATCAATTGCCAGTCAAGCCAGTC
 CGTAGCGAAGAATAATAATTTGGCATGGTTCCAACAAAAACCGGTAACCTCCTAACTCCTTATCTACTCAGCTTCAACCCCTG
 CCGCGGGTGTGCCCAGCCGGTCTCAGGCTCAGGTTCCGGGACTCAATTACACTTACCATCACTCGCTCCAAAGTGAGGATTTT
 GCAACCTACTATTGTTCTGCACGGGATTCCGGGAACATACAGTCCCTTTGGGGTGGAACTCGGGTGGAGATAAAACGTACGGTGGC
 TGCCCCCTCTGTGTTTCATCTTCCACCCAGTGATGAGCAGCTGAAGAGTGGCACAGCCTCTGTGGTGTGCCTGCTCAACAACCTCT
 ACCCCAGAGAGCCAAAGGTGAGTGGAGGTGGACAATGCCCTGACAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAGGACAGC
 AAGGACAGCACCTACAGCCTGTCTCCACCCGTGACCTGTCCAAGGCTGACTATGAGAAGCACAGGTGTATGCCTGTGAGGTGAC
 CCACAGGGCCTGAGCAGCCCTGTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTCCCTGCC
 CAGCCCCAGAAGCTGCTGGAGGCCCTCTGTGTTCTCTTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACCCAGAA
 GTCACCTGTGTGGTGGTGGATGTGTCCTGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGTGCACAATGC
 CAAGACCAAGCCAGAGAAGAGCAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGAATG
 GGAAGGAGTACAAGTGTGCTGTGTCACAAGGCCCTGCCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAA
 GAGCCCCAGGTCTACACCTGCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGCCTGGTGAAAGGCTTCTA
 CCCCAGTGACATTGTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACCTACAAGACCACCCCTCCTGTGCTGAGCTCTGATG
 GCTCCTTCTTCTGTACAGCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCTGCTCTGTGATGCATGAG
 GCCCTGCACAACCACTACACCCAGAAGAGCCTGAGCCTGAGCCCTGGA

>Sequence ID 13: SI-75X8 Chain A Amino Acid Sequence

QVQLQESGGRLVQPGEPISLTCKTSGIDLSSNAIGWVRQAPGKLEWIGVIFGSGNTYYASWAKGRFTISRSTSTVYLKMNLSRSE
 DTAIYYCARGGYSSDIWGGTLTVSSASTKGPSVFPLAPSSKSTSGGTAALGLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQS
 SGLYSLSSVTVPSSSLGTQYICNVNHKPSNTKVDKRVKPKCDKHTHTCPPEAPEAAGGSPVFLFPPKPKDLMISRTPEVTCV
 VVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTI SKAKGQPREPQV
 YTLPPSRDELTKNQVSLTSCAVKGFPYSDIAVEWESNGQPENNYKTPPVLDSDGSFFLVSKLTVDKSRWQQGNVFCSCVMHEALHN
 HYTQKSLSLSPG

>Sequence ID 14: SI-75X8 Chain A Nucleotide Acid Sequence

CAAGTGCAGTGCAGAGAAAGTGGTGGTAGACTGGTTCAGCCTGGTGAACCCCTGTCACTGACGTGTAAACAAGCGGCATTGATCT
 GTCTCTAACGCCATCGGATGGGTCCGACAGGCCCCAGGAAAAGGTCTGGAGTGGATCGGAGTTATCTTCGGGAGCGGCAATACAT
 ACTAGCAAGCTGGGCAAAAGGGCGATTACGATATCACGGAGCACCTCTACAGTTTATTTGAAAATGAACTCCCTCCGGTCCGAG
 GATACCGCGATATATTACTGTGCCAGAGGGGGTACTCCTCTGATATCTGGGGGAGGGTACACTGGTTACAGTTTCATCCGCTAG
 CACCAAGAGCCCCCTCTGTGTTCCCTCTGGCCCCCTCCTCCAAGAGCACCTCTGGAGGCACTGCTGCCCTGGGCTGCCTGGTGAAGG
 ACTACTTCCAGAGCCTGTGACTGTGCTCCTGGAACCTCTGGAGCCCTGACCTCTGGAGTGCACACCTTCCCTGCTGTGCTGCAGAGC
 TCTGGCCTCTACAGCCTGTCTCTGTGGTCACTGTGCCCTCCTCCAGCCTGGGCACCCAGACCTACATCTGCAATGTGAACCACAA
 GCCCTCCAACACCAAGGTGGACAAGAGAGTGGAGCCCAAGTCTGTGACAAGACCCACACCTGCCCTCCCTGCCAGCCCCAGAGG
 CTGCTGGAGGCCCTCTGTGTTCCCTTCCCTCCAAGCCCAAGGACACCTCTGATGATCTCCAGGACCCAGAAGTCACTGTG
 GTGGTGGATGTGTCCTCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGGTGCACAATGCCAAGACCAAGCC
 CAGAGAAGAGCAGTACAACCTCCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGAATGGGAAGGAGTACA
 AGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAGCCCCAGGTG
 TACACCTGCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTCTGTGCTGTGAAAGGCTTCTACCCAGTGACAT
 TGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACCTACAAGACCACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTTCC
 TGGTCTCCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCTGCTCTGTGATGCATGAGGCCCTGCACAAC
 CACTACACCCAGAAGAGCCTGAGCCTGAGCCCTGGA

>Sequence ID 15: SI-75X8 Chain B Amino Acid Sequence

QSALTQPASVSGSPGQSITISCTGTSSDVGYNFVSWYQQHPGKAPKLMIDVSDRPSGVSDRFSGSKSGNTASLIISGLQADDEA
 DYYCSSYSSSTHIVFGGGTKVTVLGGGGSGGGSGGGSGGGSGGGVQLQESGGGLVLPKPGSLRLSCAASGFTFSSYMSWVRQAP
 GKGLEWVANINRDGSASYVDSVKGRFTISRDDAKNSLYLQMNLSRAEDTAVYYCARDGVGYFDLWGRGLTVTVSSGGGGSGGGG
 SDPQLTQSPSSLSATVGRVTINCSQSVAKNNNLAWFQKPKPKLLIYASSTLAAGVPSRFSGSGGTQFTLTITRVQSEDF
 ATYYCSARDSGNIQSFGGGTREVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDS
 KDSTYLSLSLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGECGGDKHTHTCPPEAPEAAGGSPVFLFPPKPKDLMISRTPE
 VTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTI SKAKGQPR
 EPQVYTLPPSRDELTKNQVSLWLVKGFPYSDIAVEWESNGQPENNYKTPPVLDSDGSFFLVSKLTVDKSRWQQGNVFCSCVMHE
 ALHNHYTQKSLSLSPG

>Sequence ID 16: SI-75X8 Chain B Nucleotide Sequence

CAGTCTGCCCTGACTCAGCCTGCCTCCGTGTCTGGGTCTCCTGGACAGTCGATCACCATCTCCTGCCTGGAACCCAGCAGTGACGT
 TGGTGGTTAACTTTGTCTCCTGGTACCAACAACACCCAGGCAAGCCCCAACTCATGATCATGATGTGATGTCAGTGATCGGCCCT
 CAGGGGTGTCTGATCGCTTCTCCGGCTCCAAGTCTGGCAACACGGCCCTCCCTGATCATCTCTGGCCTCCAGGCTGACGACGAGGCT

GATTATTACTGCAGCTCATATGGGAGCAGCAGCACTCATGTGATTTTCGGCGGAGGGACCAAGGTGACCGTCTAGGCGGTGGCGG
TAGTGGGGGAGGCGGTCTTGGCGGCGGAGGGTCCGGCGGTGGAGGATCACAGGTGCAATTGCAGGAGTCGGGGGGAGGCGTGGTCA
AGCCTGGAGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCTTTAGTAGTTATTGGATGAGCTGGGTCCGCCAGGCTCCA
GGGAAGGGGTGGAGTGGGTGGCCAAACATAAAACCCGATGGAAGTGCGAGTTACTATGTGGACTCTGTGAAGGGCCGATTACCAT
CTCCAGAGACGACGCCAAGAACTCACTGTATCTGCAAATGAACAGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAG
ATCGTGGGGTGGGCTACTTCGATCTCTGGGGCCGTGGCACCCCTGGTCAACCTCTCGAGTGGCGGTGGAGGGTCCGGCGGTGGTGA
TCAGATCCTCAATTGACCAAGTCCCCTAGTAGCCTTTCTGCAACCGTGGGCCAGAGGTAACAATCAATTGCCAGTCAAGCCAGTC
CGTAGCGAAGAATAAATTTGGCATGGTCCAAACAAAACCGGGTAAACCTCCTAAACTCCTTATCTACTCAGCTTCAACCCCTTG
CCGCGGGTGTGCCCCAGCGGTCTCAGGCTCAGGTTCCGGGACTCAATTTACACTTACCATCACTCGCGTCCAAAGTGAGGATTTT
GCAACCTACTATTGTTCTGCACGGGATTCCGGGAACATACAGTCCCTTTGGGGTGGAACTCGGGTGGAGATAAAACGTACGGTGGC
TGCCCCCTCTGTGTTTCATCTCCACCCAGTGATGAGCAGCTGAGAGAGTGGCACAGCCTCTGTGGTGTGCTGCTCAACAACCTCT
ACCCAGAGAAGCCAGGTGAGTGAAGGTGGACAATGCCCTGCAAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAGGACAGC
AAGGACAGCACCTACAGCCTGTCTCCACCTGACCCTGTCCAAGGCTGACTATGAGAAGCACAGGTGTATGCCTGTGAGGTGAC
CCACAGGGCCTGAGCAGCCTGTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTCCCTGCC
CAGCCCCAGAGCTACAGCCCTGCTGTGTTCTCTCCAGCCCAAGGACACCCCTGATGATCTCAGGAGGAGTGTGAGGAGTGTG
GTCACTGTGTGGTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGAAGTGACAATGC
CAAGACCAAGCCAGAGAAGAGCAGTACAAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGAATG
GGAAGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGA
GAGAGGAGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGA
CCCCAGTGACATTGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACACTACAAGACCACCCCTCTGTGCTGGACTCTGATG
GCTCCTTCTTCTGTACAGCAAGCTGACTGTGGACAAGAGCCGTGGCAGCAGGCAATGTGTTCTCTGCTGTGCTCATGCATGAG
GCCCTGCACAACCACTACACCCAGAAGAGCCTGAGCCTGAGCCCTGGA

>Sequence ID 17: SI-75P6 Chain A Amino Acid Sequence

DVVMTPSPSTLSASVGDRTVINCQASESISWLAHYQQKPGKAPKLLIYEASKLASGVPSRFSGSGSGTEFTLTISLQPDDEFATY
YCQGYFYFISRTYVNSFGGGTKVEIKGGGSGGGGSGGGGSEVQLVESGGGLVQPGGSLRLSCAASGFTISTNAMSWSVRQA
PGKLEWIGVITGRDITYYASWAKGRFTISRDNKNTLYLQMNLSRAEDTAVYYCARDGSSAITSNINWGQGLVTVSSGGGSG
GGGSQVQLQSGPGLVKPSETLSITCTVSGFSLTNYGVHWIRQAPGKLEWLGVIWSSGNTDYNTPFTSRFTITKDNSKNQVYFKL
RSVRADDTAIYYCARALTYDYEFAYWQGTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGLVKDYFPEPVTVSWNSGALTSG
VHTFPAVLQSSGLYSLSSVTVPPSSSLGTQTYICNVNHKPSNTKVDKRVFKPSDKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLM
ISRTEPVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDNLNGKEYKCAVSNKALPAPIEKTISK
AKGQPREPQVYTLPPSRDELTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFS
CSVMHEALHNHYTQKLSLSLSPGGGGSGGGGSDVMTQSPSSVSASVGDRTVITCQASQNIIRTYLSWYQQKPGKAPKLLIYAAANL
ASGVPSRFSGSGSGTDFLTISDLEPGDAATYYCQSTYLGTDYVGGAFGGGTCLTVLGGGGSGGGGSGGGGSEVQLVESGG
GLVQPGGSLRLSCTASGFTISSYHMQWVRQAPGKLEYIGTISGGGNVYASARGRFTISRPSSKNTVDLQMNLSRAEDTAVYYC
ARDSGYSDPMWQGLTVTVSS

>Sequence ID 18: SI-75P6 Chain A Nucleotide Sequence

GACGTCGTGATGACCCAGTCTCCTTCCACCTGTCTGCATCTGTAGGAGACAGAGTCACCATCAATTGCCAAGCCAGTGAGAGCAT
TAGCAGTTGGTTAGCTTGGTATCAGCAGAAACCAGGAAAGCCCTAAGCTCCTGATCTATGAAGCATCCAACCTGGCATCTGGGG
TCCCATCAAGGTTCAAGCGGAGTGGATCTGGGACAGAATTTACTCTCACCATCAGCAGCTGCAGCCTGATGATTTTGCACCTTAT
TACTGCCAAGGCTATTTTTATTATTAGTCTGACTTATGTAATTTCTTTCGGCGGAGGGACCAAGGTGGAGATCAAAGGCGGTGG
CGGTAGTGGGGAGGCGGTTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCAGAGGTGCAGCTGGTGGAGTCTGGGGAGGCTTGG
TCCAGCCTGGGGGCTCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCATCAGTACCAATGCAATGAGCTGGGTCCGCCAGGCT
CCAGGGAAGGGGCTGGAGTGGATCGGAGTCATTACTGGTCTGATATCACATACTACGCGAGCTGGGCGAAAGGCAGATTACCAT
CTCCAGAGACAATCCAAGAACACGCTGTATCTTCAAATGAACAGCCTGAGAGCCGAGGACACGGCTGTGTATTACTGTGCGAGAG
ACGGTGGTTCTTCTGCTATTACTAGTAACAACATTTGGGGCCAGGGAACCTGGTCACCGTCTCGAGTGGCGGTGGAGGTCCGGC
GGTGGTGGATCACAAGTACAGTTGCAGCAATCCGGTCCCGTCTCGTCAAACCGAGTGAGACGCTTAGTATAACGTGTACTGTTTC
AGGCTTTAGCTTACGAATATGGAGTTCACTGGATTCCGGCAGGCACCCGGCAAAGGTTTGAATGGCTGGGTGTTATTGGTCAG
GTGGAATACAGACTATAACACCCCTTTACAAGTCGGTTCACAATTACGAAAGATAATTCCAAAAATCAAGTTTATTTCAGTTG
AGATCCGTCCGCGCGGACGACACTGCGATCTACTATTGTGCGAGGGCACTGACCTACTACGATTACGAATTTGCGATTGGGGGCA
AGGGACTCTTGTAAAGTCTCCAGTGTAGCACCAAGGGCCCATCGGTCTTCCCTTGGCACCTCTCTCCAAGAGCACCTCTGGGG
GCACAGCGCCCTGGGCTGCTGCTCAAGGACTACTTCCCGAACCGGTGACGGTGTCTGGAAGTCAAGGCGCCTGACCGCCTGAC
GTGACACACCTTCCGGCTGCTTCAAGTCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCTGCCCTCCAGCAGCTTGGGCAC
CCAGACCTACATCTGCAACGTGAATCACAAAGCCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAATCTTGTGACAAAACCTC
ACACATGCCACCGTGGCCAGCACCTGAAGCCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAACCAAGGACACCCCTCATG
ATCTCCCGGACCCCTGAGGTACATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGAGCGG
CGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAAGCTCTCACCGTCTCTGC
ACGAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAGCGTCTCCAACAAGCCCTCCAGCCCCCATCGAGAAAACCATCTCCAAA
GCCAAGGGGAGCCCGAGAACACAGGTGTATACCCTGCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTGAGCCTGTCTGT
CGCCGTCAAAGGCTTCTATCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTC
CCGTGCTGGACTCCGACGGCTCCTTCTTCTCTGTGAGCAAGCTACCGTGGACAAGAGCAGGTGGCAGAGGGGAACGCTTCTCA
TGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGAGAAGAGCCTCTCCTGTCTCCGGTGGCGGCGCGGTTACAGTGG

TGGGGGATCCGACGTTGTGATGACGACGCTCCTAGTTCAGTATCAGCGTCTGTTGGGGATCGAGTCACGATTACATGCCAGGCGA
GCCAAAATATAGGACGTATCTGTCTTGGTATCAACAAAAGCCTGGTAAGGCTCCAAAACCTCCTCATTACGCCGCTGCCAACTTG
GCTAGTGGAGTACCTTACGCTTTAGTGGGTGAGGTTCTGGAACAGATTTTACGTTGACGATCTCCGATTGGAACAGGGGACGC
TGCCACGTATATTGCCAGTCCACCTACCTCGGGACTGACTACGTTGGTGGGGCGTTTGGCGGAGGAACAAAACCTCACTGTACTTG
GTGGTGGTGGTTCAGGCGGGGGGGTTCGGCGGAGGCGGTTCTGGGGTGGAGGTTCCGAGGTTGAGTTGGTTGAAAGTGGGGGG
GGACTCGTTTACGCTGGAGGCTCTTTCGCACTTTCTTGTACCGCTTCTGGGTTCACTATAAGTTCATATCATATGCAATGGGTAAG
ACAGCGCGCTGGTAAGGACTTGAATACATAGGAACAATAAGCTTCTGGTGGTAACGCTCTATTACGCTCATCCGCGGGGGGAGGT
TTACAAATTTCCAGGCTTTAGCAAAAAACGCGTAGATCTGCAATGAAGTCTCTTTCGCGCTGAAGATACAGCAGTCTACTACTGC
GCCAGGATTGAGGTATTCTGACCCCATGTGGGGGAGGGACATTGGTTACCGTGTCTCT

>Sequence ID 19: SI-75P6 Chain B Amino Acid Sequence

QSALTQPASVSGSPQSIITISCTGSSSDVGGYNFVSWYQQHPGKAPKLMYDVS DRPSGVSDRFSGSKSGNTASLIISGLQADDEA
DYCCSSSYGSSSTHVFVGGGKVTVLGGGSGGGGSGGGGSGGGGSGVQLQESGGGLVKPGGSLSLSCAASGFTFSSYWMSWVRQAP
GKGLEWVANINRDGSASYVDVSVKGRFTISRDDAKNSLYQMNSLRAEDTAVYYCARDRGVGYFDLWGRGTLTVSSGGGSGGGT
SEIVLTQSPSTLSVSPGERATFSCRASQSIGTNIHWYQQKPKPRLLIKYASEISGIPDRFSGSGSGTEFTLTISVQSEDFAV
YYCQNNNNWPTTFGGTKLTLVLRVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDS
TYSLSSTLTLSKADYEKKHVVYACEVTHQGLSSPVTKSFNRGECGGDKHTCPPEPAEAAGGPSVFLFPPKPKDLMISRTPEVTC
VVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVQLHQLDNLNGKEYKCAVSNKALPAPIEKTISKAKGQPREPQ
VYTLPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLYSKLTVDKSRWQQGNVSCSVMHEALH
NRFTQKSLSLSPGGGGSGGGGSDIQMTQSPSTLSASVGRVTTITCQASQSISSHLNHWYQQKPKAPKLLIYKASTLASGVPSRF
SGSGSGTEFTLTISVLPDDFATYYCQGYSGWNVNDFGGGKVTVLGGGSGGGGSGGGGSGGGGSEVQLLESGLVQPGGSL
LSCAASGFSFSSGYDMCWVRQAPGKLEWIAAGSAGITVDANWAKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCARSAF
DYAMD LWGQGLTVTVSS

>Sequence ID 20: SI-75P6 Chain B Nucleotide Sequence

CAGTGTGCCCTGACTCAGCTGCTCCGTGTCTGGGTCTCCTGGACAGTCGATCACCATCTCCTGCACTGGAACAGCAGTGACGT
TGGTGGTTATAACTTTGTCTCCTGGTACCAACAACCCAGGCAAGCCCAAACTCATGATCTATGATGTGAGTGTGCGCCCT
CAGGGGTGTCTGATCGCTTCTCCGCTCCAAGTCTGGCAACACGGCCTCCTGATCATCTCTGGCCTCCAGGCTGACGACGAGGT
GATTATTACTGCAGCTCATATGGGAGCAGCAGCACTCATGTGATTTTCGGCGGAGGGACCAAGGTGACCGTCTTAGGCGGTGGCGG
TAGTGGGGGAGGCGGTCTTGGCGGCGGAGGTTCCGGCGGTGGAGGATCACAGGTGCAATTGCAGGAGTCGGGGGAGGCTGGTGA
AGCCTGGAGGGTCCCTGAGCCTCTCCTGTGCAGCCTCTGGATTACCTTTAGTAGTTATTGGATGAGCTGGGTCGCCAGGCTCCA
GGGAAGGGGCTGGAGTGGGTGGCAACATAAACCCGCGATGGAAGTGCAGGTTACTATGTGGAAGTCTGTGAAGGGCCGATTACCAT
CTCCAGAGACGACGCCAAGAACTCACTGTATCTGCAATGAACAGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAG
ATCGTGGGGTGGGCTACTTCGATCTCTGGGGCGGTGGCACTTCCGACCGGTGACCAAGCTGACCGTTTACGTAAGGCTGGCTGCACCATC
TCAGAAATCGTCTTACACAATCTCCTAGCACACTGAGTGTGAGCCCCGGCGAAGCGCGGACTTTCTCTTGCAGGGCAAGTCAATC
CATAGGGACTAATATACATTGGTATCAACAAAAGCCAGGTAAACACCCAGGCTTTTGATTAAGTATGCAAGTGAAGTCTATTTCCG
GTATCCCTGACCGCTTCTCTGGATCAGGCGAGTGGCACAGAGTTCACACTCACCATATCTAGTGTGCAATCAGAGGACTTCGCCGTG
TATTATGCCCAACAGAAATAACTGGCCGACTACCTTCGGACCGGTGACCAAGCTGACCGTTTACGTAAGGCTGGCTGCACCATC
TGTCTTCATCTTCCCGCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTTGTGTGCTGCTGAATAACTTCTATCCAGAG
AGGCCAAAGTACAGTGAAGGTGGATAACGCCCTCCAATCGGGTAACTCCAGGAGAGTGTACAGAGCAGGACAGCAAGGACAGC
ACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAAGCAGACTACGAGAAACACAAAGTCTACGCTGCGAAGTCAACCATCAGGG
CCTGAGCTCGCCCGTCAACAAAGAGCTTCAACAGGGGAGAGTGTGGAGGGGACAAAACCTCACACATGCCACCGTGCACAGCCTG
AAGCCGCGGGGGGACCGTCACTCTCTCTCCCCCAAAACCAAGGACACCTCATGATCTCCCGGACCCCTGAGGTACATGC
GTGGTGGTGGACGTGAGCCACGAAGCCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAA
CCCGCGGAGGAGCAGTACAACAGCAGTACCGTGTGGTCAAGCTCCTCACCCTGCTGACACAGGACTGGCTGAATGGCAAGGAGT
ACAAGTGGCGGCTTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAGCCAAAGGGCAGCCCCGAGAACCCAG
GTGTACACCTGCCCCAAAGCCGGATGAGCTGACCAAGAACAGGTGACGCTGTGGTGCCTGGTCAAGGCTTCTATCCAGCGA
CATCGCCGTGGAGTGGGAGAGCAATGGGCGAGCGGAGAACAACTACAAGACACGCTCCCGTGTGACTCCGACGGCTCCTTCT
TCCTCTATAGCAAGCTCACCCTGGACAAGAGCAGGTGGCAGCAGGGGAACGCTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCAC
AACGATTTCACGACAGAGAGCCCTCCTCTGTCTCCGGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCCGACATTGATGACACA
GTCACCGTCTACGCTCTCAGCCTCAGTAGGCGATAGGGTGAATACCTGCCAAGCCTCCCAATCTATAAGTTACACCTCAACT
GGTATCAACAGAAACCCGGTAAAGCACCGAAGTGTCTATCAAGGCATCAACTCTTGCCTCAGGTGTGCCTAGTCTGCTTCTCC
GGGAGCGGCTCCGGTACTGAGTTTACTTTGACGATATCTTCCCTCCAACCCGACGACTTCGCCACATACTATTGTCAGCAGGGTTA
TAGTTGGGGAAATGTTGACAATGTGTTTGGAGGGGGAACGAAAGTGACTGTGTTGGGAGGGGGAGGAAGTGGCGCGCGCGGAAGCG
GAGGTGGTGGCTCCGGCGGGGGTGAAGCGAAGTGAATGCTGAAAGTGGTGGCGGACTTGTGAACCTGGTGAAGCCTCTCA
CTCTCTTGGCGGGGAGTGGTTTTAGCTTCAGTAGCGGCTACGATATGTGCTGGGTAAGACAGGCTCCTGGTAAAGGCCTTGA
GATTGCGTGTATCGCGCGGGTCTGCTGGTATAACATACGATGCAAACTGGGCGAAAGGGCGCTTCACAATCTCCAGGGACAACT
CAAAAAATACATTGTACCTCCAGATGAATAGCCTGAGAGCCGAAGACACCGCAGTCTACTATTGCGCAAGGTGACGATTGAGCTTC
GATTATGCAATGGATCTTTGGGGCCAGGGGACGCTGCTCACCCTCATCTTGA

>Sequence ID 21: SI-75P4 Chain A Amino Acid Sequence

EIVLTQSPSTLSVSPGERATFSCRASQSIGTNIHWYQKPKGPPRLIKYASESISGIPDRFSGSGSGTEFTLTISVQSEDAFVY
 YCQQNNWPTTFGPQKTLTVLGGGSGGGGSGGGGSGGGGSGVQVQLQQSGPGLVKPSETLSITCTVSGFSLTNYGVHWIRQAPGKGL
 EWLGVWISGGNTDYNTPFTSRFTITKDNSKNQVYFKLSVRADDTAIYYCARALTYDYEFAYWQGTLLTVSVSSGGGSGGGGSEV
 QLVESGGGLVQPGGSLRLSCAASGFTISTNAMSWVRQAPGKLEWIGVITGRDITYYASWAKGRFTISRDNSKNTLYLQMNSLRAE
 DTAVYYCARDGSSAITSNNIWGGQTLTVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFP
 AVLQSSGLYSLSSVTVPSLSLTQTYICNVNHKPSNTKVDKRVFKSCKDHTCPPEPAEAAGGPSVFLFPPKPKDLMISRTPE
 EVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQP
 REPQVYTLPPSRDELTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLVSKLTVDKSRWQQGNVFCSCVMH
 EALHNHYTQKSLSLSPGGGSGGGGSGREGPELSPDDPAGLLDLRQGMFAQLVAQNVLIDGPLSWYSDPGLAGVSLTGGLSYKED
 TKELVVAKAGVYVFFQLELRVAVAGEGSGSVSLALHLQLRSLAAGAAALALTVDLPPASSEARNSAFQGRLLHLSAGQRLGVH
 LHTEARARHAWQLTQGVTLGLFRVTPEIPAGLGSTGSGKPGSGEGSTKREGPELSPDDPAGLLDLRQGMFAQLVAQNVLIDG
 PLSWYSDPGLAGVSLTGGLSYKEDTKELVVAKAGVYVFFQLELRVAVAGEGSGSVSLALHLQLRSLAAGAAALALTVDLPPASSE
 ARNSAFQGRLLHLSAGQRLGVHLHTEARARHAWQLTQGVTLGLFRVTPEIPAGLGGGGSGGGGSGREGPELSPDDPAGLLDLRQ
 GMFAQLVAQNVLIDGPLSWYSDPGLAGVSLTGGLSYKEDTKELVVAKAGVYVFFQLELRVAVAGEGSGSVSLALHLQLRSLAAG
 AALALTVDLPPASSEARNSAFQGRLLHLSAGQRLGVHLHTEARARHAWQLTQGVTLGLFRVTPEIPAGL

>Sequence ID 22: SI-75P4 Chain A Nucleotide Sequence

GAAATCGTCCTTACACAATCTCCTAGCACACTGAGTGTGAGCCCCGGCGAACCGCGCACTTTCTCTGCGAGGGCAAGTCAATCCAT
 AGGGACTAATATACATTTGGTATCAACAAAGCCAGGTAACACCCACCGCTTTTGATTAGTATGCAAGTGAGTCTATTTCGGTA
 TCCCTGACCGCTTCTCTGGATCAGGCAGTGGCACAGAGTTCACTACCATATCTAGTGTGCAATCAGAGGACTTCGCGGTGTAT
 TACTGCCAACAGAATAATAACTGGCCGACTACCTTCGGAGCCGGTACAAAGCTGACCGTTTTAGCGGGTGGCGGTAGTGGGGGAGG
 CGGTTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCACAAAGTACAGTTGCAGCAATCCGGTCCCGGTCTCGTCAAACCGAGTGAGA
 CGCTTAGTATAACGTGTACTGTTTCAAGCTTTAGCCTTACGAATATGGAGTTCACTGGATTTCGGCAGGCACCCGGCAAAGGTTTG
 GAATGGCTGGGTGTTATTTGGTCAAGTGGAAATACAGACTATAACACCCCTTTTACAAGTGGTTCACAATTACGAAAGATAATTC
 CAAAATCAAGTTTATTTCAAGTTGAGATCCGTCCGCGCGGACGACACTGCGATCTACTATTGTGCGAGGGCACTGACCTACTACG
 ATTACGAATTTGCGTATTGGGGGCAAGGGACTCTTGTAAAGTCTCAGCGCGCGGTGGAGGGTCCGGCGGTGGTGGATCAGAGGTG
 CAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCATCAGTAC
 CAATGCAATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGCTGGAGTGGATCGGAGTCATTACTGGTCTGATATCACATACTACG
 CGAGCTGGGCGAAAGGCAGATTACCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTTCAAATGAACAGCCTGAGAGCCGAG
 GACACGGCTGTGTATTACTGTGCGAGAGACGGTGGTCTTCTGCTATTACTAGTAACAACATTTGGGGCCAGGGAACCTTGGTCAC
 CGTGTAGTATAACGTGTACTGTTTCAAGCTTTAGCCTTACGAATATGGAGTTCACTGGATTTCGGCAGGCACCCGGCAAAGGTTTG
 GCTGCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTGTTGGAAGTCAAGCGCCCTGACCAGCGCGGTGCACACCTTCCCCG
 GCTGTCTACAGTCTCAGACTCTACTCCCTCAGCAGCGTGGTACCGTGCCTCCAGCAGCTTGGGCACCCAGACCTACATCTG
 CAACGTGAATCACAGCCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAAATCTTGTGACAAAACCTCACACATGCCACCGT
 GCCCAGCCTGAAGCCCGGGGGGACCGTCACTTCTCTCTTCCCTTCCCTCCCAAGAGCACCTCTGGGGGCAAGCCGCTTCCCCGACCCCT
 GAGGTACATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGGTGGAGTGCATAA
 TGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCAGCAGTACCGTGTGGTCAAGCTCCTCACCCTCTGCACAGGAGTGGCTGA
 ATGGCAAGGAGTACAAGTGGCGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAGGCCAAAGGGCAGCCCC
 CGAGAACCAAGTGTATACCTTCCCGGATGAGCTTCAAGTCAAGAACCAAGGACACCTCATGATCTCCCGGCGTCAAGGAGTCT
 CTATCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCAGCCTCCCGTGTGGTGGACTCCG
 ACGGCTCCTTCTTCTCGTGAAGCTCACCCTGGACAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCAT
 GAGGCTCTGCACAACCACTACACGCAGAGAGCCTCTCCTGTCTCCGGGTGGCGGGCGGGTTCAGGTGGTGGGGGATCCCGAGA
 GGGCCCCGAGCTGTCTCCTGATGACCCAGCAGGCTCTTGGACTTGGCGCAGGGTATGTTTCGCTCAACTTGTGGCTCAGAATGTTT
 TGCTCATTGATGGACCACTCTCTTGGTATAGTGACCCCGGTCTGGCCGGGGTGGTCTGACCCGGCGGGCTCTCTTATAAAGAGGAT
 ACTAAGGAAGTGGTGTAGCAAAAGCGGGCGTTTATTACGTTTTTTTTCAGCTGGAGCTCAGGCGCGTGGTGGCGGGCAGGGGAG
 TGGCTCTGTGTCCCTGGCCCTGCACCTACAGCCCTTGAGAAGCGCTGCAGGTGCTGCCGCACTGGCTTTAACTGTTGACCTCCCTC
 CGGCTCTTCTGAAGCTAGAAACAGCGCTTTCGGCTTCAAGGGGCGCTGCTGCACCTGAGCGCAGGCCAGCGCTTAGGTGTGCAC
 CTTTCATACAGAGGCCAGGGCCGACACGCTTGGCAGCTCACACAGGCTGCCACGGTCTCTCGACTTTTCCGCGTTACTCCCGAGAT
 CCCCCTGGCCTCGGAAGTACTGGTCTGGGTCTAAACCCGGTTCGGCGAAGGTAGTACTAAAGGACGAGAAGGGCCAGAGTTAA
 GTCCAGATGACCTGCTGGGCTTTTGACCTGCGGCAGGGCATGTTGCTCAACTGGTGGCTCAGAAGCTGCTGCTGATCGATGGC
 CCCCAGAGTTGGTACAGCGATCCCGGGCTGGCAGGCTGCACTTACAGGGGGCTCTCTTACAGGAAGACACAAAGGATTAGT
 GGTGCTAAGGCTGGCGTGTATTACGTGTTCTTCAACTGGAGCTGAGAAGGGTGTGGCAGGAGAGGGTAGCGGCAGCGTGTCTT
 TAGCCCTTCACTTGCAGCCCTGAGGTCTGCTGCAGGTGCAGCCGCTCTCGCGTCACCGTGGATCTCCCCCAGCCTCATCTGAA
 TAGGAACAGTGCATTTGGCTTTAGGGACGCTTGTGCACTCTCCGCTGGACAGAGGCTGGGCGTGCACCTTCACACAGAGGC
 CCGTGCAGGCATGCATGGCAGCTCACTCAGGGGGCAACAGTGTGGGTCTCTCCGCGTGAATCCTGAAATACAGCTGGACTTG
 GCGGTGGAGGCAGCGCGGAGGAGTCTCGTGAAGGGCCAGAAGTGTCCCCGATGACCCAGCCGAGTCTCGATCTCAGACAG
 GGCATGTTCTGCTCAGCTTGTAGCCCAAATGTCTCCTGATTGACGGCCCTTTGAGCTGGTATAGTGATCCCGGCTTGGCCGGGT
 ATCTCTGACCGGAGGCTCTCTTACAAGGAAGACACCAAGAGCTGGTGGTGGCAAAAGCGGGGTGATTATGTGTTCTTTCAGC
 TCGAGCTGGGAGAGTTGTGGCGGGGAAGGGTCTGGGAGCGTATCTTGCACCTTCACTGCAGCCCTGCGCAGCGCCCTGGA
 GCGCGCCCTTGTCTTACTGTGGATCTGCCTCCTGCTTCTCAGAAGCACGCAACAGCGCCTTCGGCTTTCAAGGAGCTCTCCT
 GCACTTGTCCGAGACAGAGGTTGGGCTCCATTTACACACTGAGGCACGGGCACGGCAGCTTGGCAGCTTACCCAGGGAGCCA
 CCGTGTGGGACTCTTTAGAGTGACACCCGAGATCCCCGCTGGCTGTGA

QSA LTQ PASVSGSPGQSITI SCTGTSSDVGGYNFVSWYQQHPGKAPKLMI YDVS DRPSGVSDRFSGSKSGNTASLI ISGLQADDEA
DY YCSSYGSSTHVI FGGGT KVTVLGGGGSGGGSGGGSGGGGSQVQLQESGGGLVKPGGSLSLSCAASGFTFSSYXMSWVRQAP
GKGLEWVANINRDGSA SYVDVSKGRFTISRDDAKNSLYLQMNLSRAEDTAVVYCARDRGVYFDLWGRGTLTVTSVGGGSGGGG
SDVMVTQSPSTLSASVGDRVTITCQASESI SSWLAWYQKPGKAPKLLIYEASKLASGVP SRFSGSGSGTEFTLTISSLQPDDFAT
YYCQGYFYFISRTYVNSFGGGTKEVIKRTVAAPSVFIFPPSDEQLKSGTASVVCCLNNFYPREAKVQWKVDNALQSGNSQESVTEQ
DSKDSYTSLSSTLTLSKADYEKKHKVYACEVTHQGLSSPVTKSFNRGECGGDKTHTCPCPAPEAAAGPSVFLFPPKPKDTLMISRT
PEVTCVVDVSHEDPEVKFNWYDVGVEHNKAKTPREEQYNSTYRVVCLTVLHQDWLNGKEYKAVCNKALPAIEKTIKAKGQ
PREPQVYTLPSRDELTKNQVSLWCLVKYLHFKP SDIAEWEHSNGQPENNYKTPPVLDSDGSFFLYSKLTVDKSRWQQGVNFSQSV
HEALHNRTQKSLSLSPGGGGSGGGGSDIQMTQSPSTLSASVGDRVTITCQASQSI SHLWNYQQKPGKAPKLLIYKASTLASGV
PSRFLSGSGSGTEFTLTISLQLPDDFATYYCQQGYSWGNVDNVFGGGTKVTVLGGGGSGGGSGGGSGGGSGGGSEVQLLESGGGLVQP
GGSLSLSCAASGFTFSSYDMDCWVRQAPGKLEWIAICAAAGSAGITDANWAKGRFTISRDN SKNTLYLQMNLSRAEDTAVVYCAR
SAFSFDYAMD LWGQGLTVTVSS

CAGTCTGCCCTGACTCAGCCTGCCTCCGTGTCTGGGTCTCCTGGACAGTCGATACCATCTCCTGCACTGGAACCAGCAGTGAAGTGTGGTGGTTATAACTTTGTCTCCTGGTACCAACAACCCAGGCCAAAGCCCAAATCATGATCTATGATGTGAGTATGCTCGGCCCTCAGGGGTCTGTGATCGCTTCTCCGGTCCAAAGTCTGGCAACCGGCTCCCTGATCATCTCTGGCCTGACGACGAGGCTGATTATTACTCGAGCTCATATGGGAGCAGCAGCATGTGATGATTTTCGGCGGAGGGACCAAGGTACCGCTCTAGCGCGTGGCGGTAGTGGGGGAGGCGGTTCTGGCGGGCGAGGGTCCGGCGGTGGAGGATCACAGGTGCAATTGCAGGAGTCCGGGGGAGGCCTGGTCAAGCTGGAGGTCCTCTGAGCGCTCTCCTGTGGAGCCTCTGGATTACCTTTAGTAGTTATTGGATGAGCTGGGTCCGGCAGGCTCCAGGAAAGGCTGGAGTGGGTGGCCCAACATAAACCCGATGGAAGTGGCAGTTACTATGTGGAATCTGTGAAGGGCGATTACCACTCCAGAGACGACGCCAAGAACTACTGTATCTGCAAAATGAACGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGTGCCGAGATCGTGGGGTGGGCTACTTCGATCTCTGGGGCCGTGGCACACCTGGTCAACCTCTCGAGCGGCGGTGGAGGGTCCGGCGGTGGTGGATCAGACGTCTGTGATGACCCAGTCTCTTCCACCCTGTCTGAGTCTAGGAGACAGAGTACCATTCAATTGCCAACCGCAGTGAGAGCATTAGCAGTTGGTTAGCTGGTATCAGCAGAAACAGGGAAAGCCCTAAGCTCTGATCTATGAAGCATCAAATGGCATCTCTGGGTCCCATCAAGGTTCAGCGGCAGTGGATCTGGGACAGAATTCACTCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGCAACTTATTACTGCCAAGGCTATTTTTATTATTATTAGTCGATCTTATGTAATTTCTTTCGGCGGAGGGACCAAGGTGGAGATCAAACGTACGGTGGCTGCACCATCTGTCTTCATCTTCCGGCCATCTGATGAGCAAGTTGAAATTGGAAGTGCCTCTGTTGTGCTGTGCTGAATAACTTCTATCCAGAGAGGCCAAAGTACAGTCCGGAGGTGGATTAACGCCCTCCAATCGGGTAACCTCCAGGAGAGTGTCAAGAGCAGGACAGCAAGGACAGCACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAAGCAGACTACGAGAAACACAAAGTCTACGCCCTGCGAAGTCAACCATCAGGGCCTGAGCTCGCCCGTCAAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGACAAAATCACACATGCCCAACGTGCCAGCACCCTGAAGCCGCGGGGGACCGTCACTCTTCTCTTCCCCCAAACCAAGGACACCCCTCATGATCTCCCCGACCCTGAGGTACATGCGTGGTGGTGGAGCTGAGCCAGAACCCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCAATATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAAGCTCTCACCGTCTGCACAGGACTGGCTGAATGGCAAGGAGTACAAGTGGCGGCTTCCAACAAAGCCCTCCAGCGCCCATCGAGAAACCATCTCCAAGGCGAAAGGGCAGCCCCGAGAACCACAGGTGTACACCTGCCCCAAAGCCGGATGAGTGTGACCAAGAACCAAGTACGCTGTGGTGGTGTGCTCAAGGTCTTCTATCCAGCGCATCGCGTGGAGTGGGAGAGCAATGGGCGCCGGAGAACATAAGAACACGCCCTCCCGTGTCTGGACTCCGACGGCTCTTCTTCTTATAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGAGGGGAACGTCTTCTCATGTCTCCGTGTGCATGAGGCTCTGCAACACAGATTACGCGAGAAGAGCCTCTCCCTGTCTCCGGTGGCGGTGGAGGGTCCGGCGGTTGGATCCGACATTACAGATGACAGGTACCGTCTACGCTCTCAGCTCAGTAGGCGATAGGGTACTATCACTGCCAAGCTCCCAATCTATAAGTTACACCTCAACTGGTATCAACAGAAACCCGGTAAAGCACCGAAGCTGCTCATCTACAAGGCATCAACTCTTGCTCAGGTGTGCCTAGTGTCTCCGGAGCGGCTCCGGTACTAGTTTACTTTGACGATATCTCCCTCCAACCCGACGACTTCCGCAGATACTATGTCAGCAGGGTTATAGTTGGGGAATGTGACAATTGTGTTGGAGGGGACCAAGAGTGTGGAGGGGGAGGAAAGTGGCGGCGGGAACGGAGGTTGGTCTCCGCGGGGTGGAAGCGAAGTGAATTGCTCGAAAGTGTGGCGGACTGTGCAAACTGGTGGAAAGCCTCTCACTCTCTTGGCGGGCAGTGGTTTTAGCTTCAGTAGCGGTACGATATGTGCTGGGTAAAGACAGGCTCCTGGTAAAGGCTTGTGAGTGGATTCGCTGTATCGCCGCGGGTCTGCTGGTATAACATACGATGCAAACTGGGCGAAAGGGCGCTTCACAATCTCCAGGGACAACTCAAAAATCATTTGACCTCCAGATGAATAGCCTGAGAGCGGAAGACCCGACCTACTATTGCCAAGTCAAGCTATTTAGCTTCGATTATGCAATTGGATCTTTGGGGCCAGGGGACGCTCGTCAACGCTCTCATCTTGA

EIVLTQSPSTLSVSPGERATFSCRASQSIGTNIHWYQQKPKGPPRLLIKYASEISIGIPDRFSGSGSGTEFLITISVQSEDAFVY
 YCQQNNNWPTTFGPGTKLTVLGGGSGGGGSGGGGSGGGGQVQLQQSGPGLVKPSETLSITCTVSGFSLTNYGVHWIRQAPGKGL
 EWLGVISWGGNTDYNTPFTSRFTITKDNSKNQVYFKLRSVRADDTAIYYCARLITYYDYEFAYWGQGTFLVTVSSSGGGSGGGGSE
 QLVESGGGLVQPGGSSRLTSCAASGFTITSNAMSWVRQAPGKLEWIGVITGRDITYYASWAKGRFTISRDNKNTGLYLQMNLSRAE
 DAVYYCARDGGSSALTSNNIWLQGQTLVTVSSASTKQPSVFLAPSSKSTSGGTAAALGCLVKDYFPEPVTVSWNSGALTSGVHTFP
 AVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPEAAGGPSVFLFPPKPKDRLMI SRT
 EVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVHLQDWLNGKEYKCAVSNKALPAPIEKTSKAKGQP
 REPQVYTLPPSRDELTKNQVSLTSCAVKGFPYSDIAEVESWNGQPPENNYKTTLPVFLDSGGSFFLVSKLTVDKSRWQQGNVFSVSMV
 EALHNHYTQKSLSLSPGSGGGSGGGGSDVMVTSQPSVSASVGDVRITITCOASQNI RYTLISWYQKPKGAPKLLIYAANLASGVP
 SRFSGSGSGTDFTLTISDLEPGDAATFYCOSTYSLGTPYVGGAGGGTKLTVLGGGSGGGGSGGGGSGGGGSEVLQVLESVGGGLVQ

>Sequence ID 26: SI-75P3 Chain A Nucleotide Sequence

>Sequence ID 27: SI-75P3 Chain B Amino Acid Sequence

>Sequence ID 28: SI-75P3 Chain B Nucleotide Sequence

CAGTCTGCCCTGACTCAGCCTGCCTCCGTGTCTGGGTCTCCTGGACAGTCGATCACCATCTCCTGCACTGGAACACGAGTCAGCT
TGGTGGTTATAACTTTGTCTCTTGGTACCAACAACACCCAGGCAAAGCCCCAAACTCATGATCTATGATGTCACTGATCGGCCCT
CAGGGGTGCTCTGATCGCTTCTCCGGCTCCAAGTCTGGCAACAACCGGCCCTCCTTGATCATCTCTGGCCTCCAGGCTGACGACAGGCT
GATTATTACTGACGTCATATGGGAGCAGCAGCACTCATGTGATTTTCGGCGAGGGACAAGAGTACCGCTCTAGCCGGTGGCGG
TAGTGGGGGAGCGGTTCTGGCGCGGAGGGTCTCGGCGGTGGAGGATCAAGGTGCAATTGCAAGAGTCTGGGGGAGGCGCTGGTCA
AGCCTGGAGGGTCCCTGAGCCTCTCCTGTGCAGCCTCTGGATTACCTTTAGTAGTTATTGGATGAGCTGGGTCCGCCAGGCTCCA
GGGAAGGGGCTGAGTGGTGGCTGGCCAAACATAAACCGCGATGGAAGTCGGAGTTACTATGTGGACTCTGTGAAGGGCCGATTCA
CCTCAGAGACGACGCCAAGAATCACTGTATCTGCAATGAACAGCCTGAGAGCTGAGGACACCGCTGTGTATTACTGTGCGAGAG
ATCGTGGGGTGGGCTACTTCGATCTCTGGGGCGGTGGACCCCTGGTACCCTCTCGAGCGCGCGGTGGAGGGTCCGGCGGTGGTGG

Sequence ID 30: SI-75P9 Chain A Nucleotide

GAAATCGTCCTTACACAATCTCCTAGCACACTGAGTGTGAGCCCCGGCGAACGCGCGACTTTTCTCTTGCAGGGCAAGTCAATCCAT
AGGGACTAATATCATCTTGGTATCAACAAAAGCCAGGTAAACCCACCCAGGCTTTTGATTAAGTATGCAAGTGAGTCTATTTCCGGTA
TCCCTACCGCTCTCTCGGATCAGGCGAGTGGCAGAGTTCCACTACCATCTAGTGTGCAATCAGAGGACTTCCGCCGTAT
TACTGCCAACAGAATAATAACTGGCCGACTACCTTCGGACCCGGTACAAAGCTGACCGTTTTAGCGGTTGGCGGTAGTGGGGGAGG
CGGTTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCACAGTACAGTTGCAGCAATCCGGTCCCGGTCTCGTCAAACCGAGTGAGA
CGCTTAGTATACAGTGTACTGTTTCAGGCTTTAGCCCTTACGAACATATGGAGTTCACTGGATTTCGGCAGCAACCCGGCAAAGGTTTG
GAATGGCTGGGTGTTATTGGTCAGGTGGAAATACAGATCAATAACACCCCCCTTACAAGTCGGTTCACAATTACGAAGATAATTC
CAAAAATCAAGTTTATTTCAGTGTGAGTCCGTCCGCGCGGACGACACTGCGATCTACTATTGTGCGAGGGCACTGACCTACTACG
ATTACGAATTTGCGTATTGGGGCAAGGGACTCTTGTAACAGTCTCGAGCGGCGGTGGAGGGTCCGGCGGTGGTGGATCACAGGTG
CAGCTGCAGGAGAGTGGAGGAGGCCCTGGTGAAGCCTGGAGGAGCCCTGCGGTGTCTGTGCTGCCTCTGGCTTCACCTTCTCCTC
CTACTGGATGAGCTGGGTGCGCCAGGCCCCAGGCAAGGGCGCTGGAGTGGGTGGCCAAACATCAACAGAGATGGCTCTGCCTCCTACT
ATGTGGACTCTGTGAAGGCGCGTCTACCATTCCAGAGATGATGCCAAGAAGCAGCTGTACCTGCAGATGAACAGCCTGAGAGCT
GAGGACACAGCTGTGTACTACTGTGCCAGAGACCGAGGTGTGGGTACTTTGACCTGTGGGGCAGAGGACCCCTGGTGACTGTGTC
CTCTGCTAGCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTCTCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCC
TGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTGCTGGAACCTAGGCGCCCTGACCAAGGCGCTGCACACCTTCCCCGGCTGTC
CTACAGTCTCTCAGGACTCTACTCTCTCAGCAGCGTGGTGACCTGCCCTCAGCAGCTTGGGCAACCCAGACCTACATCTGCAACGT
GAATCAACAGGCCAGCAACCAAGGTGGACAGAGAGTTGAGCCCAAATCTTGTGACAAAATCACATGCCACCGTGGCCAG
CACCTGAAGCCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCCAGGACACCCCTCATGATCTCCCGGACCCCTGAGGTG
ACATGCGTGGTGGTGGACGTGAGCCAGGAAGACCTGAGGTCAAGTTCAACTGGTAGTGGACGGCTGGAGGTGCATAATGCCAA
GACAAAGCCGCGGGAGGAGCAGTACACAGCAGCTACCGTGTGGTCAAGCTCCTCACCGTCTGCACCGAGCTGGCTGAATGGCA
AGGAGTACAAGTGC GCGGTCTCCAACAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAGCCAAAGGCGACGCCCGAGAA
CCACAGGTGTATACCTGCCCCATCCGGGATGAGTGACCAAGAACAGGTGAGCTGTCTCTGCGCCGTCAAAGGCTTCTATCC

CAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCT
CCTTCTCCTCGTGAGCAAGCTCACCGTGGACAAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCT
CTGCACAACCACTACACGCAGAGAGCCTCTCCTGTCTCCGGTGGCGGCGCGGTTGAGGTGGTGGGGGATCCGACGTTGTGAT
GACGCAGTCTCCTAGTTTCACTATCAGCGTCTGTTGGGGATCGAGTACACGATTACATGCCAGGCGAGCCAAAATATTAGGACGTATC
TGTCTTGGTATCAACAAAAGCCTGGTAAGGCTCCAAAACCTCTCATTTACGCCGCTGCCAACTTGGCTAGTGGAGTACCTTCACGC
TTTAGTGGGTGAGGTTCTGGAACAGATTTTACGTTGACGATCTCCGATTGGAACACAGGGGACGCTGCCACGTATTATTGCCAGTC
CACCTACCTCGGACTGACTACGTTGGTGGGGCGTTTGGCGGAGGAACAAAACCTACTGTACTTGGTGGTGGTGGTTTACGGCGGGG
GGGGTCCGGCGGAGGCGGTTCTGGGGGTGGAGGTTCCGAGGTTTCACTTGGTTGAAAGTGGGGGGGACTCGTTTACGCTGGAGGC
TCTTTGCGACTTTCTGTACCGCTCTGGGTTTCACTATAAGTTCATATCATATGCAATGGGTAAAGACAGGCGCCTGGTAAGGGACT
TGAATACATAGGAACAATAAGCTCTGGTGGTAACGCTCTATTACGCCCTCATCCGCGCGGGGGAGGTTTACAATTTCCAGGCCCTTCTA
GCAAAAACACGGTAGATCTGCAAAATGAACCTCTCTCGCGCTGAAGATACAGCAGTCTACTACTGCGCCAGGGATTACAGGTATTCT
GACCCCATGTGGGGCAGGACACATTGGTTACCGTGTCTCTTGA

>Sequence ID 31: SI-75P9 Chain B Amino Acid Sequence

DVVMQSPSTLSASVGDRVTINQASESISSWLAWYQQKPGKAPKLLIYEASKLASGVPSRFSGSGTEFTLTISLQPDDEFATY
YCQGYFYFISRTYVNSFGGGKVEIKGGGSGGGGSGGGGSGGGGSEVQLVESGGGLVQPGGSLRLSCAASGFTISTNAMSWVRQA
PGKGLEWIGVITGRDITYYASWAKGRFTISRDNKNTLYLQMNSLRAEDTAVVYCARDGSSAITSNNIWGGQGLVTVSSGGGSG
GGGQSALTQPASVSGSPGQSITISCTGTSDDVGGYNFVSWYQQHPGKAPKLMYDVSDRPSGVSDRFSGSKSGNTASLIISGLQA
DDEADYYCSYSSSTHVICFGGQKVTVLRTPKANPTVLFPPSSEELQANKATLVCLISDFYPGAVTVAWKADGSPVKAGVETTK
PSKQSNKYYAASSYLSLTPQWKSHRSYSQVTHEGSTVEKTVAPTECSGGDKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISR
TPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVQLHDWLNQKEYKCAVSNKALPAPIEKTISKAKG
QPREPQVYTLPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFCSSV
MHEALHNRFQKSLSLSPGGGGSGGGGSDIQMTQSPSTLSASVGDRVTITCQASQSISSHLNLYQQKPGKAPKLLIYKASTLASG
VPSRFSGSGSGTEFTLTISLQPDDEFATYTCQGYSGWGNVDNVFGGGKVTVLGGGGSGGGGSGGGGSGGGGSEVQLLESGLLVQ
PGGSLSLSCAASGFSFSSGYDMCWVRQAPGKGLEWIIACIAGSAGITYDANWAKGRFTISRDNKNTLYLQMNSLRAEDTAVVYCA
RSAFSFDYAMDLDWGQGLTVTVSS

>Sequence ID 32: SI-75P9 Chain B Nucleotide Sequence

GACGTCGTGATGACCCAGTCTCCTTCCACCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCAATTGCCAAGCCAGTGAGAGCAT
TAGCAGTTGGTTAGCTTGGTATCAGCAGAAACAGGGAAAGCCCTAAGCTCCTGATCTATGAAGCATCCAACTGGCATCTGGGG
TCCCATCAAGGTTTACGCGCAGTGGATCTGGGACAGAATTAACCTCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGAACCTTAT
TACTGCCAAGGCTATTTTTATTTATTTAGTCGTACTTATGTAATTTCTTTCGGCGGAGGGACCAAGGTGGAGATCAAAGGCGGTGG
CGGTAGTGGGGGAGGCGGTTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCAGAGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTGG
TCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCATCAGTACCAATGCAATGAGCTGGGTCCGCCAGGCT
CCAGGGAAGGGGCTGGAGTGGATCGGAGTCATTACTGGTCTGTATATCACATACTACGCGAGCTGGGCGAAAGGCAGATTACCAT
CTCCAGAGACAATCCAAGAACACGCTGTATCTTCAAATGAACAGCCTGAGAGCCGAGGACACGCGCTGTGTATTACTGTGCGAGAG
ACGGTGGTCTTCTGCTATTACTAGTAACAACATTTGGGGCCAGGGAACCTGGTCACCGTGTCTCAGGCGGTGGAGGGTCCGGC
GGTGGCTGACAGTACAGCTGACCTGACCCAGCCAGCTCTGTCTCTGGCAGCCAGGCCAGTCCATCACCATCTCTGCACAGGCAC
CTCCAGTGTATGGGAGGCTACAACCTTTGTGTCTGGTACCAGCAGCAGCCAGGCAAGGCCCAAGCTCATGATCTATGATGTGT
CTGACAGACCTCTGGAGTCTCTGACAGATTCTCTGGCTCCAAGAGTGGCAACACAGCCTCCCTCATCATCTCTGGCCTGCAGGCT
GATGATGAAGCTGACTACTACTGCTCCTCCTATGGCTCCTCCTCCACCCATGTCTATCTTTGGAGGAGGCCAAGGTCACTGTGCT
GCGTACGCCCAAGGCCAACCCTGACCCAGCCAGCTGTTCCCCCAAGCAGCAGGAACTGCAGGCCAACAAGGCCACCCCTGTGTGCC
TGATCAGCGACTTCTACCTGGCGCGGTGACCGTGGCCTGGAAGCCGATGGATCTCCCGTGAAGGCCGGCGTGAAGCCACCAAG
CCCAGCAAGCAGAGCAACAACAAATACGCCGCCAGCTCCTACCTGAGCCTGACCCCGAGCAGTGGAAAGTCCCACCGGCTCTACAG
CTGCCAGGTACACACGAAGGCAGCAGCTGGAAAGACAGTGGCCCCCAGGAGTGCAGCGGAGGCGACAAAACCTCACACATGCC
CACCGTGCCAGCAGCTGAAGCCGCGGGGGGACCGTCACTCTTCTCTTCCCCCAAAACCAAGGACACCCCTCATGATCTCCCGG
ACCCCTGAGGTACATGCGTGGTGGTGGAGTGGACGACGAAGACCCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGT
GCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCAGTACCGTGTGGTCAAGCGTCTCACCCTCTGCACAGGACT
GGCTGAATGGCAAGGAGTACAAGTGCAGGCTCTCAACAAGCCCTCCAGCCCCCATCGAGAAAACCTCTCCAAAGCCAAAGGG
CAGCCCCGAGAACCACAGGTGTACCCCTGCCCCAAGCCGGGATGAGCTGACCAAGAACCAGGTACGCTGTGGTGCCTGGTCAA
AGGCTTCTATCCCAGCGACATCGCGTGGAGTGGGAGAGCAATGGGCGAGCCGAGAACAACTACAAGACCACGCCTCCCGTGCTGG
ACTCCGACGGCTCCTTCTTCTCTATAGCAAGCTCACCCTGGACAAGAGCAGGTGGCAGCAGGGGAACGCTCTTCTCATGCTCCGTG
ATGCATGAGGCTCTGCACAACAGATTACGCAGAAAGCCCTCTCCCTGTCTCCGGTGGCGGTGGAGGTCCGGCGGTGGTGGATG
CGACATTCAGATGACACAGTCACCGTCTACGCTCTCAGCCTCAGTAGGCGATAGGGTGACTATCACCTGCCAAGCCTCCCAATCTA
TAAGTTCACACCTCAACTGGTATCAACAGAAACCGGTAAAGCAGCAGGCTGCTCATCTACAAGGCATCAACTCTTGCTCAGGT
GTGCCTAGTCGCTTCTCCGGGAGCGGCTCCGGTACTGAGTTTACTTTGACGATATCTTCCCTCCAACCCGACGACTTCGCCACATA
CTATTGTACGAGGTTATAGTTGGGGAATGTTGACAATGTGTTGGAGGGGAACGAAAGTGACTGTGTTGGGAGGGGGAGGAA
GTGGCGGCGCGGAAGCGGAGGTGGTGGCTCCGGCGGGGGTGGAAAGCGAAGTGAATTGCTCGAAAGTGGTGGCGGACTTGTGCAA
CCTGGTGGAAAGCCTCTCACTCTCTGCGCGGCGAGTGGTTTTAGCTTCAGTAGCGGCTACGATATGTGTGGGTAAAGACAGGCTCC
TGGTAAAGGCCCTTGAAGTGGATTGCGTGTATCGCCGCCGGGTCTGCTGGTATAACATACGATGCAAACTGGGCGAAAGGCGGCTTCA
CAATCTCCAGGACAACTCAAAAATACATTGTACCTCCAGATGAATAGCTGAGAGCCGAAGACACCGCAGTCTACTATTGCGCA
AGGTGACGATTTAGCTTCGATTATGCAATGGATCTTTGGGGCCAGGGGACGCTCGTCACCGTCTCATCT

>Sequence ID 33: SI-75E1 Chain A Amino Acid Sequence

EIVLTQSPSTLSVSPGERATFSCRASQSIGTNIHWYQQKPKPRLLIKYASESISGIPDRFSGSGSGTEFTLTISVQSEDAVY
YCQQNNNPWPTTFGPGLKLVLGSGSGSGSGSGSGSGSQVQLQQSGPGLVKPSETLSITCTVSGFSLTNYGVHWIRQAPGKGL
EWLGVWISGNTDYNTPFTSRFTITKDN SKNQVYFKLRVSRADDTAIYYCARALTYDYEFAYWQGT LVTVSSGGGSGGGGSEV
QLVESGGGLVQPGGSLRLS CAASGFTISTNAMS WVRQAPGKGLEWIGVITGRDITYYASWAKGRFTISRDN SKNTLYLQMNSLRAE
DTAVYYCARDGGSSAITSNNIWGQGT LVTVSSASTKGP SVFPLAPSSKSTSGGTAALGCLVKDYFPEPVT VSWNSGALTSVHTFP
AVLQSSGLYSLSVSVTVPSLSLTQTYICNVNHKPSNTKVDKRVFKSKDKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRT
EVTCTVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTI SAKAGQP
REPQVYTLPPSRDELTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLVSKLTVDKSRWQQGNVFSVSMH
EALHNHYTQKSLSLSPGGGSGGGGSDVMTQSPSSVSASVGRVITITCQASQNI RTYLSWYQQKPKGAPKLLIYAAANLASGVP
SRFSGSGSDFTLTISDLEPGDAATYYCQSTYLGT DYVGGAFGGGT KLTVLGGGSGGGGSGGGSGGGGSEVQLVESGGGLVQPG
GSLRLSCTASGFTISSYHMQWVRQAPGKGL EYIGTISGGNVYASSARGRFTISRPS SKNTVDLQMNSLRAEDTAVYYCARD SG
YSDPMWGQGT LVTVSS

>Sequence ID 34: SI-75E1 Chain A Nucleotide Sequence

GAAATCGTCCTTACACAATCTCCTAGCACACTGAGTGTGAGCCCCGGCGAACGCGCGACTTTCTCTTGCAGGGCAAGTCAATCCAT
AGGGACTAATATACATTGGTATCAACAAAAGCCAGGTAAACCACCCAGGCTTTTGATTAGTATGCAAGTGAGTCTATTCCCGTA
TCCCTGACCGCTTCTCTGGATCAGGCAGTGGCACAGAGTTCACACTCACCATATCTAGTGTGCAATCAGAGGACTTCGCGGTGTAT
TACTGCCAACAGAAATAAATACTGGCCGACTACCTTCGGACCCGGTACAAAGCTGACCGTTT TAGGCGGTGGCGGTAGTGGGGGAGG
CGGTCTGGCGGGGAGGGTCCGGCGGTGGAGGATCACAAAGTACAGTTGCAGCAATCCGGTCCCGGTCTCGTCAAACCGAGTGAGA
CGCTTAGTATAACGTGTACTGTTT CAGGCTTTAGCCTTACGAACATATGGAGTTCAGTGGATT CGGCAGGCACCCGGCAAAGGTTTG
GAATGGCTGGGTGTTATTTGGTCAGGTGGAAATACAGACTATAACACCCCTTTTACAAGTCGGTTT CACAATTACGAAAGATAATTC
CAAAAATCAAGTTTATTTCAAGTTGAGATCCGTCCGCGCGGACGACACTGCGATCTACTATTGTGCGAGGGCAGTGCCTACTACG
ATTACGAATTTGCGTATTGGGGGCAAGGGACTCTTGTAACAGTCTCAGCGCGCGGTGGAGGGTCCGGCGGTGGTGGATCAGAGGTG
CAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATT CACCATCAGTAC
CAATGCAATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGATCGGAGTCATTACTGGTCTGATATCACATACTACG
CGAGCTGGGCGAAAGCGGAGGAGTACCATCTCCAGAGACAAATCCAGAACACGCTGTATCTTCAAATGAACAGCCTGAGAGCGGAG
GACACGGCTGTGTATTACTGTGCGAGAGACGGTGGTCTTCTGCTATTACTAGTAACAACATTTGGGGCCAGGGAACCTGGTCAC
CGTGTCTCAGCTAGCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGG
GCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCTGGAAGTCAAGCGCCCTGACCAGCGGCGTGACACCTTCCCC
GCTGTCTCCTACAGTCTCAGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCAACCCAGACCTACATCTG
CAACGTGAATCACAAGCCCAGCAACCAAGGTGGACAAGAGAGTTGAGCCCAAATCTTGTAACAAAATCACACATGCCCACCGT
GCCCAGCACCTGAAGCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCCAAAGGACACCCCTCATGATCTCCCGGACCCCT
GAGGTACATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGGTGGAGGTGCATAA
TGCCAGACAAAGCGCGGAGGAGCAGTACACAGCAGTACCGTGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT
ATGGCAAGGAGTACAAGTGC GCGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAGGCCAAAGGGCAGCCC
CGAGAACCAAGGTGTATACCTGCCCCATCCCGGATGAGTGAACAGGACAGGTCAGCTGTCTGCGCGGTCAAAGGCTT
CTATCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACACGCTCCCGTGTGGACTCCG
ACGGCTCCTTCTTCTCGTGAGCAAGCTCACCCTGGACAGAGAGAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGAT
GAGGCTCTGCACAACCACTACACGAGAAGACCTCTCCTGTCTCCGGGTGGCGGGCGGTTGAGGTGGTGGGGGATCCGACGT
TGTGATGACGAGTCTCCTAGTTCAGTATCAGCGTCTGTTGGGGATCGAGTCACGATTACATGCCAGGCGAGCCAAAATATTAGGA
CGTATCTGTCTTGGTATCAACAAAAGCCTGGTAAGGCTCCAAAATCTCATTACGCCGTGCCAACTTGGCTAGTGGAGTACCT
TCACGCTTTAGTGGGTGAGTTCTGGAACAGATTTACGTTGACGATCTCCGATTGGAACAGGGGACGCTGCCACGTATTATTG
CCAGTCCACCTACCTCGGACTGACTACGTTGGTGGGGCTTTGGCGGAGGAACAAAATCACTGTACTTGGTGGTGGTGGTTCAG
GCGGGGGGGGTTCGGCGGAGGCGGTCTTGGGGTGGAGGTTCCGAGGTTCAAGTTGAAAGTGGGGGGGACTCGTTACGCT
GGAGGCTCTTTCGACTTTCTGTACCGCTCTGGGTTCACTATAAGTTCATATCATATGCAATGGGTAAAGACAGGCGCCTGGTAA
GGACTTGAATACATAGGAACAATAAGCTCTGGTGGTAACGTCTATTACGCTCATCCGCGCGGGGAGGTTTACAATTTCCAGGC
CTTCTAGCAAAAACAGGTAGATCTGCAATGAAGTCTCTTCCGCTGAAGATACAGCAGTCTACTACTGCGCCAGGGATT CAGGG
TATTCTGACCCCATGTGGGGCAGGGCATTGGTTACCGTGTCTCTTGA

>Sequence ID 35: SI-75E1 Chain B Amino Acid Sequence

QSALTQPASVSGSPGQSITISCTGTSSDVGGYNFVSWYQQHPGKAPKLMYDVSDRPSGVSDRFSGSKSGNTASLIISGLQADDEA
DYCCSSYSSSTHVFGGGTKVTVLGGGSGGGGSGGGGSGGGGSGVQLQESGGGLVKPGGSLSLSCAASGFTFSSYMSWVRQAP
GKGLEWVANINRDGASYYVDSVKGRFTISRDDAKNSLYLQMNSLRAEDTAVYYCARDRGVGYFDLWGRGTLVTVSSGGGSGGGG
SDVMTQSPSTLSASVGDRTINQASESISSWLAWYQQKPKGAPKLLIYEASKLASGVPSRFSGSGSGTEFTLTISLQPDFFAT
YYCQGYFYFTRTYVNSFGGKVEIKRTVAAPSVFIFPSSDEQLKSGTASVVCLLNNFYPREAKVQWKNALQSGNSQESVTEQ
DSKSDSTYLSLSTLTLSKADYEKHKVYACEVTHQGLSPVTKSFNRGECGGDKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRT

PEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQ
PREPQVYTLPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDS DGSFFLYSKLTVDKSRWQQGNV FSCSVM
HEALHNRFTQKSLSLSPG

>Sequence ID 36: SI-75E1 Chain B Nucleotide Sequence

CAGTCTGCCCTGACTCAGCCTGCCTCCGTGTCTGGGTCTCCTGGACAGTCGATCACCATCTCCTGCACTGGAACCAGCAGTGACGT
TGGTGGTTATACTTTGTCTCCTGGTACCAACAACACCCAGGCAAGGCCCAAACTCATGATCTATGATGTCAGTGATCGGCCCT
CAGGGGTGTCTGATCGCTTCTCCGGCTCCAAGTCTGGCAACACGGCCCTCCTGATCATCTCTGGCCTCCAGGCTGACGACGAGGCT
GATTATTACTGCAGCTCATATGGGAGCAGCAGCACTCATGTGATTTTCGGCGGAGGGACCAAGGTGACCGTCTAGGCGGTGGCGG
TAGTGGGGGAGGCGGTTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCACAGGTGCAATTGCAGGAGTCGGGGGAGGCGCTGGTCA
AGCCTGGAGGGTCCCTGAGCCTCTCCTGTGCAGCCTCTGGATTACCTTTAGTAGTTATTGGATGAGCTGGGTCCGCCAGGCTCCA
GGAAAGGGGCTGGATGCGTGGTGGCCACATAAACCGCGATGGAAGTGCCGAGTTACTATGTGGACTCTGTGAAGGGCCGATTACCAT
CTCCAGAGACGACGCCAAGAACTCACTGTATCTGCAATGAACAGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAG
ATCGTGGGGTGGGCTACTTCTGATCTCTGGGCGGTGGCACCCTGGTCACCGTCTCGAGCGGCGGTGGAGGGTCCGGCGGTGGTGA
TCAGACGTCGTGATGACCCAGTCTCCTTCCACCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCAATTGCCAAGCCAGTGAGAG
CATTGAGTGGTGGTATGCGTGGTATCAGACAGAAACAGGAGGCAATGAGCTCCTGATCTATGAAGCATCCAACTGGCATCTG
GGGTCCCATCAAGGTTGAGCGGCGAGTGGATCTGGGACAGAATTCACCTCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGCAACT
TATTACTGCCAAGGCTATTTTATTTATTTAGTCTACTTATGTAAATTCTTTCGGCGGAGGGACCAAGGTGGAGATCAACAGTAC
GGTGGCTGCCCCCTCTGTGTTCTCTTCCACCCTGATGAGCAGCTGAAGAGTGGCAGACGCTCTGTGGTGTGCCTGCTCAACA
ACTTCTACCCAGAGAGAAGCCAAAGGTGCACTGGAAGGTGGACAATGCCCTGCAGAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAG
GACAGCAAGGACAGCACCTACAGCCTGTCTCCACCCTGACCCTGTCCAAGGCTGACTATGAGAAGCACAAGGTGTATGCCTGTGA
GGTGACCCACCCAGGCGCTGAGCAGCCTGTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTC
CCTGCCAGCCCCAGAAGCTGTGGAGGCCCCCTCTGTGTTCTCTTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACC
CCAGAAGTCACCTGTGTGGTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGAAGTGCA
CAATGCCAAGACCAAGCCAGAGAAGAGCAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCAGGACTGGC
TGAATGGGAAGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAG
CCCAGAGAGCCCCAGGTCTACACCTGCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGCCTGGTGAAGG
CTTCTACCCAGTACATGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACACTACAAGACCAACCCCTCCTGTGCTGGACT
CTGATGGCTCCTTCTTCTGTACAGCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCTGCTCTGTCTG
CATGAGGCCCTGCACAACCGCTTCAACCCAGAAGAGCCTGAGCCTGAGCCCTGGATGA

>Sequence ID 37: SI-75E2 Chain A Amino Acid Sequence

EIVLTQSPSTLSVSPGERATFSCRASQSIGTNIHWYQQKPKPRLLIKYASESISGIPDRFSGSGSGTEFTLTISVQSSEDAFVY
YCQQNNWPTTFPGPTKLTVLGGGSGGGGSGGGGSGVQLQQSGPGLVKPSETLSITCTVSGFSLTNYGVHWIRQAPGKGL
EWLGLVIWGGNTDYNTPFTSRFTITKDNSKNQVYFKLRVSRADDTAIYYCARALTYDYEFAYWQGTLLVTVSSGGGSGGGGSEV
QLVESGGGLVQPGGSLRLSCAASGFTISTNAMSWVRQAPGKGLEWIGVITGRDITYYASWAKGRFTISRDNSKNTLYLQMNSLRAE
DTAVYYCARDGSSAITSNNIWGQGLTVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFP
AVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHKPSNTKVDKRVPEKSCDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDITLMI SRT
EIVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQ
REPQVYTLPPSRDELTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTTTPVLDS DGSFFLVSKLTVDKSRWQQGNV FSCSVMH
EALHNNHYTKSLSLSPG

>Sequence ID 38: SI-75E2 Chain A Nucleotide Sequence

GAAATCGTCCTTACACAATCTCCTAGCACACTGAGTGTGAGCCCCGGCGAACGCGCGACTTTCTCTTGCAAGGGCAAGTCAATCCAT
AGGGACTAATATACATTGGTATCAACAAAAGCCAGGTAACCCAGGCTTTTGATTAAGTATGCAAGTGAGTCTATTTCCGGTA
TCCCTGACCGCTTCTCTGGATCAGGCAGTGGCAGAGTTCACACTCACCATATCTAGTGTGCAATCAGAGGACTTCGCCGTGTAT
TACTGCCAACAGAAATAATAACTGGCCGACTACCTTCGGACCCGGTACAAGCTGACCGTTTTAGGCGGTGGCGGTAGTGGGGGAGG
CGGTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCACAGTACAGTTGCAGCAATCCGGTCCCGGTCTCGTCAAACCGAGTGAGA
CGCTTAGTATAACGTGTACTGTTTCAAGCTTTAGCCTTACGAACATATGGAGTTCACTGGATTCCGCGAGGCACCCGGCAAAGGTTT
GAATGGCTGGGTGTTATTTGGTCAGGTGGAAATACAGACTATAACACCCCTTTACAAGTCCGTTTCAATACGAAAGATAATTC
CAAAAATCAAGTTTATTTCAAGTTGAGATCCGTCCGCGCGGACGACACTGCGATCTACTATTGTGCGAGGGCACTGACCTACTACG
ATTACGAATTTGCGTATTGGGGGCAAGGGACTCTGTAAACAGTCTCGAGCGGCGGTGGAGGGTCCGGCGGTGGTGGATCAGAGGTG
CAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGCTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCATCAGTAC
CAATGCAATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGATCGGAGTCATTACTGGTCTGATATCACATACTACG
CGAGCTGGGCGAAAGGCAGATTACCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTTCAAATGAACAGCCTGAGAGCCGAG
GACACGGCTGTGATTACTGTGCGAGAGACGGTGGTCTTCTGTCTATTACTAGTAACAACATTTGGGGCCAGGGAACCTTGGTCAC
CGTGCTCAGCTAGCACCAAGGCCCTCTGTGTTCCCTCTGGCCCCCTCCTCCAAGAGCACCTCTGGAGGCACTGCTGCCCTGG
GCTGCCTGGTGAAGGACTACTTCCAGAGCCTGTGACTGTGCTCTGGAACCTCTGGAGCCTGACCTCTGGAGTGCACACCTTCCCT

GCTGTGCTGCAGAGCTCTGGCCTCTACAGCCTGTCTCTGTGGTCACTGTGCCCTCCTCCAGCCTGGGCACCCAGACCTACATCTG
CAATGTGAACCACAAGCCCTCCAACACCAAGGTGGACAAGAGAGTGGAGCCCAAGTCTGTGACAAGACCCACACCTGCCCTCCCT
GCCAGCCCCAGAGGCTGCTGGAGGCCCTCTGTGTTCTCTTCCCTCCCAAGCCCAAGGACACCTGATGATCTCCAGGACCCCA
GAAGTCACCTGTGTGGTGGTGGATGTGTCCCATGAAGACCCAGAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGGTGCACAA
TGCCAAAGCAAGCCAGAGAAGAGCAGTACAACCTCCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGA
ATGGGAAGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGCCAGCCC
AGAGAGCCCCAGGTGTACACCTGGCTCCCTCCAGAGATGAGNSTRACCAAGAACCAGGTGTCCCTGTCTGTGCTGTGAAGGCTT
TACCCCCAGTGACATTGCTTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACCTACAAGACCACCCCTCCTGTGCTGGAGCTGTG
ATGGCTCCTTCTTCTGGTCTCCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCTGTCTGTGCATGCAT
GAGGCCCTGCACAACTACACCCAGAAGAGCCTGAGCCTGAGCCCTGGATGA

>Sequence ID 39: SI-75E2 Chain B Amino Acid Sequence

QSALTQPASVSGSPQSIITISCTGTSSDVGGYNFVSWYQQHPGKAPKLMYDVS DRPSGVSDRFSGSKSGNTASLIISGLQADDEA
DYCCSSYGSSTHVFVGGGKVTVLGGGSGGGGSGGGGSGGGGSGVQLQESGGGLVKPGGSLSLSCAASGFTFSSYMSWVRQAP
KGLWVANNRNDGSASYVDVSVKGRFTISRDDAKNSLYLQMNSTRACEDTAVVYCARDRGVGYFDLWGRGTLVTVSSGGGSGGGG
SDVVMTQSPSTLSASVGDRTINQASESISSWLAWYQQKPKAPKLLIYEASKLASGVPSRFSGSGSGTEFTLTISLQPDFFAT
YYCQGYFYFTSRITYNSFSGGTKEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQ
DSKSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSPVTKSFNRGECGGDKHTCPPEAPEAAGGSPVFLFPPPKPKDTLMISRT
PEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTI SKAKGG
PREPQVYTLPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFSQSV
HEALHNRFTQKSLSLSPGGGGSGGGGSDIQMTQSPSTLSASVGRVITTCQASQSISSHLNWKYQQKPKAPKLLIYKASTLASGV
PSRFSGSGSGTEFTLTISLQPDFFATYYCQGYSWGNVDNVFSGGTKEIVLGGGSGGGGSGGGGSGGGGSEVQLLESGLLVQF
GGSLSLSCAASGFTSSSYDMCWVRQAPGKLEWIAACSAAGSAGITYDANWAKGRFTISRDNKNTLYLQMNSTRACEDTAVVYCAR
SAFSFDYAMDLDWGQTLTVTVSS

>Sequence ID 40: SI-75E2 Chain B Nucleotide Sequence

CAGTCTGCCCTGACTCAGCCTGCCCTCCGTGTCTGGGTCTCTGGACAGTCGATCACCATCTCCTGCACTGGAACAGCAGTGACGT
TGGTGGTTATAACTTTGTCTCCTGGTACCAACAACACCCAGGCAAGGCCCAAACTCATGATCTATGATGTGATGATCGGCCCT
CAGGGGTGTCTGATCGCTTCTCCGGCTCCAAGTCTGGCAACACGGCCTCCCTGATCATCTCTGGCCTCCAGGCTGACGACGAGCT
GATTATTACTGCAGCTCATATGGGAGCAGCAGCACTCATGTGATTTTCGGCGGAGGGACCAAGGTGACCGTCTTAGGCGGTGGCGG
TAGTGGGGGAGGCGGTCTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCACAGGTGCAATTGCAGGAGTCCGGGGGAGGCTGGTCA
AGCCTGGAGGGTCCCTGAGCCTCTCCTGTGCAGCCTCTGGATTACCTTTAGTAGTTATTGGATGAGCTGGGTCGGCAGGCTCCA
GGGAAGGGGCTGGAGTGGGTGGCAACATAAACCCGCGATGGAAGTGCAGGTTACTATGTGGACTCTGTGAAGGGCCGATTACCAT
CTCCAGAGACGACGCCAAGAACTCACTGTATCTGCAATGAACAGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAG
ATCGTGGGGTGGGCTACTTGCATCTCTGGGCGGTGGCACCTGGTACCCTCTCGAGCGGCGGTGGAGGGTCCGGCGGTGGTGA
TCAGACGTCGTGATGACCCAGTCTCCTTCCACCTGTCTGCATCTGTAGGAGACAGAGTACCATCAATTGCCAAGCCAGTGAGAG
CATTAGCAGTTGGTTAGCCTGGTATCAGCAGAAACAGGGAAAGCCCTAAGCTCCTGATCTATGAAGCATCCAACTGGCATCTG
GGGTCCCATCAAGGTTACGCGCAGTGGATCTGGGACAGAAATCTCACTCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGA
TATTAGTCCAAAGGCTATTTTATTTATTTATTTAGTCTACTATTGTAAATTTCTTTTCGGCGGAGGGACCAAGGTGGAGATCA
GGTGGCTGCACCATCTGTCTTCTATCTTCCCGCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTGTGTGCTGCTGAATA
ACTTCTATCCAGAGAGGCCAAAGTACAGTGGAAAGGTGGATAACGCCCTCCAATCGGGTAACTCCAGGAGAGTGTACAGAGCAG
GACAGCAAGGACAGCACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAGACAGACTACGAGAAACACAAAGTCTACGCCCTGCCA
AGTACCCCATCAGGGCTGAGCTCGCCCTCACAAAGAGCTTCAACAGGGGAGAGTGTGGAGGGCAGAAAACCTCACACATGCCAC
CGTGCCAGCACCTGAAGCCGCGGGGGACCGTCACTCTTCTTCCCCCAAAACCAAGGACACCTCATGATCTCCCGGACC
CCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCA
TAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCAGTACCCTGTGGTCAAGTCTCCTCAGGCTCCTGCACAGGACTGGC
TGAATGGCAAGGAGTACAAGTGCAGGCTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCTATCCAAGCCAAAGGGCAG
CCCCGAGAACCACAGGTGTACACCTGCCCCAAAGCCGGATGAGCTGACCAAGAACCAGGTGAGCCTGTGGTGCCTGGTCAAAGG
CTTCTATCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCGAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGTGGACT
CCGACGGCTCCTTCTCTATAGCAAGCTCACCCTGGACAAGAGCAGGTGGCAGCAGGGGAACGCTCTTCTATGCTCCGTGATG
CATGAGGCTCTGCACAACAGATTACCGCAGAAGAGCCTCTCCCTGTCTCCGGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCCGA
CATTAGATGACACAGTACCGCTCTACGCTCTCAGCCTCAGTAGGCGATAGGGTACTATCACCTGCCAAGCCTCCCAATCTATAA
GTTTACACCTCAACTGGTATCAACAGAAACCCGGTAAAGCACCGAAGCTGCTCATCTACAAGGCATCAACTCTTGCTCAGGTGTG
CCTAGTCGCTTCTCCGGGAGCGCTCCGGTACTGAGTTTACTTTGACGATATCTTCCCTCCAACCCGACGACTTCGCCACATACTA
TTGTGACAGGGTTATAGTTGGGGAATGTTGACAATGTGTTTGGAGGGGGAACGAAAGTGACTGTGTTGGGAGGGGAGGAAAGTG
GCGGCGGCGGAAGCGGAGGTGGTGGCTCCGGCGGGGGTGAAGCGAAGTGAATGCTCGAAAGTGGTGGCGGACTTGTGAACCT
GGTGAAGCCTCTCACTCTCTTGCAGCGGAGTGGTTTTAGCTTCAGTAGCGGCTACGATATGTGCTGGGTAAGACAGGCTCCTGG
TAAAGCCTTGAGTGGATTGCGTGTATCGCGCGGGGTGCTGGTATACATACGATGCAAACTGGGCGAAAGGGCCTTACAA
TCTCCAGGGACAACCAAAAAATACATTGTACCTCCAGATGAATAGCCTGAGAGCCGAAGACACCGCAGTCTACTATTGCGCAAGG
TCAGCATTTAGCTTCGATTATGCAATGGATCTTTGGGGCCAGGGGACGCTCGTACCCTCTCATCTTGA

>Sequence ID 41: SI-75x3 Chain A Amino Acid Sequence

>Sequence ID 42: SI-75X3 Chain A Nucleotide Sequence

>Sequence ID 43: SI-75X3 Chain B Amino Acid Sequence

>Sequence ID 44: SI-75X3 Chain B Nucleotide Sequence

50

GGGTCCCATCAAGGTTGAGCGGCAGTGGATCTGGGACAGAATTCACCTCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGCAACT
TATTACTGCCAAGGCTATTTTATTTATTTAGTCGTACTTATGTAAATTCCTTTTCGGCGGAGGGACCAAGGTGGAGATCAAACGTAC
GGTGCTGCCCCCTCTGTGTTTCATCTTCCACCCAGTGATGAGCAGCTGAAGAGTGGCACAGCCTCTGTGGTGTGCCTGCTCAACA
ACTTCTACCCAGAGAAGCCAAGGTGCAAGTGGAAAGGTGGACAAATGCCCTGCAGAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAG
GACAGCAAGGACAGCACCTACAGCCTGTCTCCACCCTGACCCTGTCCAAGGCTGACTATGAGAAGCACAAAGGTGTATGCCTGTGA
GGTGACCCACCAGGGCCTGAGCAGCCTGTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTC
CCTGCCAGCCCCAGAAGCTGTGGAGGCCCTCTGTGTTCTCTTCCCTCCCAAGCCCAAGGACACCTGATGATCTCCAGGACC
CCAGAAGTCACTGTGTGGTGGTGGATGTCTCCATGAAGACCCAGAAGTGAAGTCAACTGGTATGTGGATGGAGTGGAAAGTGCA
CAATGCCAAGACCAAGCCAGAGAAGAGCAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCAGGACTGGC
TGAATGGGAAGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAG
CCCAGAGAGCCCCAGGTCTACACCTGCCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGCCTGGTGAAGG
CTTCTACCCAGTACATTGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACCTACAAGACCACCCCTCCTGTGCTGGACT
CTGATGGCTCCTTCTCCTGTACAGCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCTGCTCTGTGCTG
CATGAGGCCCTGCACAACCCTTACCCAGAAGAGCCTGAGCCTGAGCCTGGATGA

>Sequence ID 45: SI-75X16 Chain A Amino Acid Sequence

EIVLTQSPSTLSVSPGERATFSCRASQSIGTNIHWYQQKPKPRLIKYASESISGIPDRFSGSGSGTEFTLTISVQSEDFAVY
YCQQNNWPTTFGPQKLTVLGGGSGGGGSGGGGSGGGGSGVQLQQSGPGLVKPSETLSITCTVSGFSLTNYGVHWIRQAPGKGL
EWLGVWISGNGTNDYNTFFTSRFTITKDNSKNQVYFKLRVSRADDTAIYYCARALTYDYEFAYWGQGLTIVTVSSGGGSGGGGSGV
QLQESGGRLVQPGPELSLTCKTSGIDLSSNAIGWVRQAPGKLEWIGVIFGSGNTYYASWAKGRFTISRSTSTVYLKMNLSRSED
AIYYCARGGYSSDIWGQGLTIVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSG
LYSLSSVTVFSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPEAAAGPSVFLFPPKPKDTLMI SRTPEVTCVVV
DVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTI SKAKGQPREPQVYT
LPPSRDELTKNQVSLSCAVKGFYPSDIAVEVESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFCSSVMHEALHNHY
TQKLSLSLSPG

>Sequence ID 46: SI-75X16 Chain A Nucleotide Sequence

GAGATCGTGCTGACCCAGTCTCCTTCCACACTGTCTGTGCTCTCCGGCGGAGAGAGCCACCTTCAGCTGTAGAGCCTCTCAGTCCAT
CGGCACCAACATCCACTGGTATCAGCAGAAAGCCCGGCAAGCCTCCTCGGCTGCTGATTAAGTACGCCTCCGAGTCCATCAGCGGCA
TCCCTGACAGATTCTCCGGCTCTGGCTCTGGCACCAGAGTTTACCCTGACCATCTCCTCCGTGCAGTCCGAGGATTTCCCGGTGTAC
TACTGCCAGCAGAAACAACAACTGGCCCAACACCTTTGGACCCGGCAACCAAGCTGACAGTCTTGGCGGGCGGAGGATCTGGCGGAGG
TGGAAGCGGAGGCGGAGGAAGCGGTGGCGGGGATCTCAAGTTCAAGTTGACGAGTCTGGCCCTGGCCTGGTCAAGCCTTCTGAGA
CACTGTCCATCACCTGTACCGTGTCCGGCTTCTCCTTGACCAATTACGGCGTGCAGTGGATCAGACAGGCCCTTGGCAAAGGACTG
GAATGGCTGGGAGTGATTTGGAGCGGGCGCAACACCGACTACAACACCCCTTTTACCAGCCGGTTCACCATCACCAAGGACAACCTC
CAAGAACCAGGTGTACTTCAAGCTGCGGAGCGTGGCGGCTGATGACACCGCCATCTACTACTGTGCTCGGGCCCTGACCTACTACG
ACTACGAGTTTGCTTACTGGGGCCAGGGCACCCCTGGTCACAGTCTCGAGCGCGGTGGAGGGTCCGGCGGTGGTGGATCACAAGTG
CAGTTGCAAGAAAGTGGTGTAGACTGGTTGAGCCTGGTGAACCTTGTCACTGACGTGTAACAACAAGCGGCATTGATCTGTCTC
TAACGCCATCGGATGGTCCGACAGGCCCCAGGAAAAGTCTGGAGTGGATCGGAGTTATCTTCGGGAGCGGCAATACATACTACG
CAAGCTGGGCAAAAGGGCGATTTACGATATCACGGAGCACCTTACAGTTTATTTGAAAATGAACTCCCTCCGGTCCGAGGATACC
GCGATATATTACTGTGCCAGAGGGGGTACTCCTCTGATATCTGGGGGAGGGTACACTGGTTACAGTTTCATCCGCTAGCACCAA
AGGCCCCCTCTGTGTTCCCTCTGGCCCCCTCCTCCAAGAGCACCTCTGGAGGCACTGCTGCCCTGGGCTGCCTGGTGAAGGACTACT
TCCCAGAGCCTGTGACTGTGTCCTGGAACCTGGAGCCCTGACCTTGGAGTGCACACCTTCCCTGCTGTGCTGCAGAGCTCTGGC
CTCTACAGCCTGTCTCTGTGGTCACTGTGCCCTCCTCCAGCCTGGGCAACCCAGACCTACATCTGCAATGTGAACCAAGCCCTC
CAACACCAAGGTGGACAAGAGAGTGGAGCCCAAGTCCTGTGACAAGACCACACCTGCCCTCCTGCCCAGCCCCAGAGGCTGCTG
GAGGCCCCCTCTGTGTTCTCTTCCCTCCCAAGCCCAAGGACACCTGATGATCTCCAGGACCCAGAAATCACCTGTGTGGTGGTG
GATGTGTCCTATGAAGACCCAGAAGTGAAGTTCACTGGTATGTGGATGGAGTGGAGTGCACAATGCCAAGACCAAGCCAGAGA
AGAGCAGTACAACCTCCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCAGGACTGGCTGAATGGGAAGGAGTACAAGTGTG
CTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAGCCCCAGGTCTACACC
CTGCCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTCTGTGCTGTGAAAGGCTTCTACCCCAAGTACATTGCTGT
GGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACTACAAGACCACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTTCTGTGCT
CCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTGCTGCTGATGCATGAGGCCCTGCACAACCACTAC
ACCCAGAAGAGCCTGAGCCTGAGCCTGAGCCTGGATGA

>Sequence ID 47: SI-75X16 Chain B Amino Acid Sequence

>Sequence ID 48: SI-75X16 Chain B Nucleotide Sequence

>Sequence ID 49: SI-75X18 Chain A Amino Acid Sequence

>Sequence ID 50: SI-75X18 Chain A Nucleotide Sequence

CAAGTGCAGTTGCAAGAAAGTGGTGGTAGACTGGTTCAGCCTGGTGAACCCTTGTCACTGACGTGTAAACAAGCGGCATTGATCT
GTCCTCTAACGCCATCGGATGGGTCCGACAGGCCCCAGGAAAAGGTCTGGAGTGGATCGGAGTTATCTTCGGGAGCCGCAATACAT
ACTACGCAAGCTGGGCAAAAAGGGCGATTACGATATACGAGGACACCTCTACAGTTTATTGAAAATGAACCTCCGCTCCGAG
GATACCGCGATATATTACTGTGCGCAGATGGGGGTACTCTCTGATATCTGGGGGCGAGGTACACTGGTTACAGTTTCACTCCGCTAG
CACCAAAGGCCCTCTGTGTTCCCTCTGGCCCCCTCCTCAAAGAGCACCTCTGGAGGCACTGCTGCCCTGGGCTGCCTGGTGAAGG
ACTACTTCCCAGAGCTGTGATCTGTCTTGAAGCTCTGGAGCCCTGACCTCTGGAGTGCACACCTTCCCTGCTGTGCTGCAAGGC
TCTGGCCTCTACAGCCTGTCTCTGTGGTCACTGTGCCCTCCTCAGCTGGGCAACCCAGACCTACATCTGCAATTGTGAACCAAA
GCCCTCCAACACCAAGTGGACAAGAGAGTGAGGCCAAGTCCCTGTGACAAGACCACACCTGCCCTCCCTGCCCAAGCCGAGG
CTGGTGGAGGGCCCCCTGTGTCTTCTCTTCCCTCCCAAGCCCAAGGACACCTGTGATGATCTCCAGGACCCCAAGTCAAGTCAAGTGTGTG
TGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTCAACTGGTATGTGGATGGATGGAGGTGGACATGCCAAGACCAAGCC
CAGAGAAGAGCAGTACAACCTCAACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCAAGGACTGGCTGAATGGGAAGGAGTAC

AGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAGCCCCAGGTC
TACACCCTGCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTTGCTCCTGTGCTGTGAAAGGCTTCTACCCAGTGACAT
TGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACACTACAAGACCACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTTCC
TGGTCTCCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTCATGATGAGGCCCTGCACAA
CACTACACCCAGAAGAGCCTGAGCCTGAGCCTGGAGGAGGAGGAGGCTCTGGAGGAGGAGGATCCCAAGTTAGTTGCAGCAGTC
TGGCCCTGGCCTGGTCAAGCCTTCTGAGACACTGTCCATCACCTGTACCGTGTCCGGCTTCTCCCTGACCAATTACGGCGTGCACT
GGATCAGACAGGCCCTGGCAAAGGACTGGAATGGCTGGGAGTGATTTGGAGCGCGGCAACACCGACTACAACACCCCTTTCACC
AGCCGGTTCAACCATACCAAGGACAACCTCCAAGAACCAGGTGTACTTCAAGCTGCGGAGCGTGCGGGCTGATGACACCCGCTCTA
CTACTGTGCTCGGGCCCTGACCTACTACGACTACGAGTTTGCTTACTGGGGCCAGGGCACCCCTGGTCACAGTTTCTTCTGGTGTG
GTGGTTTCAAGCGGGGGGGGTTCCGGCGGAGGCGGTTCTGGGGGTGGAGGTTCCGAGATCGTGCTGACCCAGTCTCCTTCCACACTG
TCTGTGCTCCTCCGGCGAGAGACCCCTTACGCTGTAGAGCCTCTCAGTCCATCGGCACCAACATCCACTGGTATCAGCAGAAGCC
CGGCAAGCCTCCTCGGCTGCTGATTAAGTACGCCTCCGAGTCCATCAGCGGCATCCCTGACAGATTCTCCGGCTCTGGCTCTGGCA
CCGAGTTTACCCTGACCATCTCCTCGTGAGTCCGAGGATTTGCCGTGTACTACTGCCAGCAGAACAACTGGCCCCACCACC
TTTGGACCCGGCACCAAGCTGACCGTGCTGTGA

>Sequence ID 51: SI-75X18 Chain B Amino Acid Sequence

DPQLTQSPSSLSATVGRVTINQSSQSVAKNNNLAWFQQKPKPKPRLLIYASSTLAAGVPSRFSGSGSGTQFTLTITRVQSEDF
TYCARSARDSGNIQSPGGGTVEIKRTVAAPSVFI FPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSK
DSTYLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGECGGDKHTHTCPPCPAPEAAGGPSVFLFPKPKDITLMI SRTPEV
TCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREQYNSTYRVVSVLTVLHQDNLNGKEYKCAVSNKALPAPIEKTISAKAGQPRE
PQVYTLPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNQGPENNYKTPPVLDSDGSFFLYSKLTVDKSRWQQGNVVFSCSVMHEA
LHNRTQKLSLSLSPGGGGGSGGGGSGVQLQESGGGLVKPGGSLSLSCAASGFTFSYWMWVRQAPGKLEWVANINRDSASYYV
DSVKGRFTISRDADKNSLYLQMNSLRRAEDTAVYYCARDRGVGYFDLWGRGTLVTVSSGGGGSGGGGSGGGGSSQALTQPASVSGSP
GQSIITISCTGTSSDVGYNFVSWYQQHPGKAPKLMYDVS DRPSGVSDRFSGSKSGNTASLIISGLQADDEADYYCSSYSSSTHV
IFGGGTKVTVL

>Sequence ID 52: SI-75X18 Chain B Nucleotide Sequence

GATCCTCAATTGACCCAGTCCCTTAGTAGCCTTTCTGCAACCGTGGGCCAGAGGGTAACAATCAATTGCCAGTCAAGCCAGTCCGT
AGCGAAGAATAATAATTTGGCATGGTTCCAACAAAAACCGGTAACCTCCTAAACTCCTTATCTACTCAGCTTCAACCTTGC
CGGGTGTGCCAGCCGGTTCTCAGGCTCAGGTTCCGGGACTCAATTTACACTTACCATCACTCGCGTCCAAAGTGAGGATTTTGCA
ACCTACTATTGTTCTGACAGGGATTCGGGAACATACAGTCCTTTGGGGGTGGAACCTCGGGTGGAGATAAAACGTACGGTGGCTGC
CCCCCTCTGTGTTTCTTCCCACCCAGTGATGAGCAGCTGAAGAGTGGCACAGCCTCTGTGGTGTGCCTGCTCAACAACCTTCTACC
CCAGAGAAGCCAAGGTGCAATGGAGGTGGACAATGCCCTGCAGAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAGGACAGCAAG
GACAGCACCTACAGCCTGTCTCCACCCTGACCCCTGTCCAAGGCTGACTATGAGAAGCACAAGGTGTATGCCTGTGAGGTGACCCA
CCAGGGCCTGAGCAGCCCTGTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAGACCCACACCTGCCCTCCCTGCCAG
CCCCAGAAGCTGTGGAGGCCCTCTGTGTTCTCTTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACCCAGAAAGT
ACCTGTGTGGTGGTGGATGTGTCCATGAAGACCCAGAAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAAAGTGACAAATGCCAA
GACCAAGCCAGAGAAGAGCAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCAGGACTGGCTGAATGGGA
AGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAG
CCCCAGGTCTACACCTGCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGCCTGGTGAAGGCTTCTACCC
CAGTGACATTGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACTACAAGACCACCCCTCCTGTGCTGGACTCTGATGGCT
CCTTCTTCTGTACAGCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTGTCATGCATGAGGCC
CTGCAACAACCGCTTCAACCAAGAGCCTGAGCCTGAGCCCTGGAGGAGGAGGAGGCTCTGGAGGAGGAGGATCCAGGTGCAGCT
GCAGAGTCCGGGGAGGCCTGGTCAAGCCTGGAGGGTCCCTGAGCCTCTCCTGTGACGCTCTGGATTACCTTTAGTAGTTATT
GGATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGCTGGAGTGGGTGGCCAACTAAACCGCGATGGAAGTGCCAGTTACTATGTG
GACTCTGTGAAGGGCCGATTACCATCTCCAGAGACGACGCCAAGAAGTCACTGTATCTGCAAAATGAACAGCCTGAGAGCTGAGGA
CACGGCTGTGATTACTGTGCGAGAGATCGTGGGGTGGGCTACTTCGATCTCTGGGGCCGTGGCACCCTGGTCAACCGTGTCTAGCG
GTGGAGGCGGTTCAAGCGGAGGTGGTTCCGGCGGTGGCGGCTCCAGTCTGCCCTGACTCAGCCTGCCTCCGTGTCTGGGTCTCCT
GGACAGTCCGATCACCATCTCCTGCATGGAACAGCAGTGGAGTGGTGGTTATAACTTTGTCTCCTGGTACCAACACCCAGG
CAAAGCCCCAACTCATGATCTATGATGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGT
CGGCCCTCCCTGATCATCTCTGGCCTCCAGGCTGACGACGAGGCTGATTATTAAGTGCAGCTCATATGGGAGCAGCAGCACTCATGTG
ATTTTCGGCGGAGGACCAAGGTGACCGTCTCTATAA

>Sequence ID 53: SI-75X1 Chain A Amino Acid Sequence

EIVLTQSPSTLSVSPGERATFSCRASQSIGTNIHWYQQKPKPRLLIKYASESISGIPDRFSGSGSGTEFTLTISVQSEDFAVY
YCQQNNWPPTFGPGTKLTVLGGGGSGGGGSGGGGSGGGGSGVQLQQSGPLVKPSETLSITCTVSGFSLTNYGVHWIRQAPGKGL
EWLGLVIWGGNTDYNTPFTSRFTITKDN SKNQVYFKLRVSRADDTAIYYCARALTYDYEFAYWQGT LVTVSSGGGGSGGGGSEV
DLVESGGGLVQPGGSLRLSCAASGFTISTNAMS WVRQAPGKLEWIGVITGRDITYYASWAKGRFTISRDN SKNTLYLQMNSLRAE
QTAVYYCARDGGSSAITSNNIWQGT LVTVSSASTKGPSVFPLAPSSKSTSGGTAALGLVKDYFPEPTVSWNSGALTSVHTFP
AVLQSSGLYSLSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCKDHTHTCPPCPAPEAAGGPSVFLFPKPKDITLMI SRTPEV

EVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQP
REPQVYITLPPSRDELTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTTPVLDSGSEFFLVSKLTVDKSRWQQGNVFSVSMH
EALHNHYTQKSLSLSPG

>Sequence ID 54: SI-75X1 Chain A Nucleotide Sequence

GAAATCGTCCTTACACAATCTCCTAGCACACTGAGTGTGAGCCCCGGCGAACGCGGACTTTCTCTTGCAGGGCAAGTCAATCCAT
AGGGACTAATATACATTGGTATCAACAAAAGCCAGGTAAACCACCCAGGCTTTTGATTAAAGTATGCAAGTGAGTCTATTTCCGGTA
TCCCTGACCGCTTCTCTGGATCAGGCAGTGGCACAGAGTTCACACTCACCATATCTAGTGTGCAATCAGAGGACTTCGCGGTGTAT
TACTGCCAACAGAATAATACTGGCCGACTACCTTCGGACCCGGTACAAAGCTGACCGTTTTAGGCGGTGGCGGTAGTGGGGGAGG
CGGTTCTGGCGGCGAGGGTCCGGCGGTGGAGGATCACAGTACAGTTGCAGCAATCCGGTCCCGGTCTCGTCAAACCCGAGTGAGA
CGCTTAGTATAACGTGTACTGTTTCAGGCTTTAGCCTTACGAACATATGGAGTTCAGTGGATTCCGGCAGGCACCCGGCAAAGGTTTG
GAATGGCTGGGTGTTATTTGGTCAGGTGGAAATACAGACTATAACACCCCTTTACAAGTCGGTTCACAATTACGAAAGATAATTC
CAAAAATCAAGTTTATTTCAAGTTGAGATCCGTCGCGCGGACGACACTGCGATCTACTATTGTGCGAGGGGACTGACCTACTACG
ATTACGGAATTGTATATTGGGGGCAAGGGACTCTTGTAACAGTCTCGAGCGGCGGTGGAGGGTCCGGCGGTGGTGGATCAGAGGTG
CAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCATCAGTAC
CAATGCAATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGATCGGAGTCATTACTGGTCTGATATCACATACTACG
CGAGCTGGGCGAAAGGCAGATTACCATCTCCAGAGACAATCCAAGAACACGCTGTATCTTCAAATGAACAGCCTGAGAGCCGAG
CAATGTGAACCAACAAGCCCTCCAACACCAAGGTGGACAAGAGAGTGGAGGCCAAGTCTGTGACAAGACCCACACCTGCCCTCCCT
CGTGTCTCTCAGCTAGCACCAAGGCCCTCTGTGTTCCCTCTGGCCCCCTCCTCCAAGAGCACCTCTGGAGGCACTGCTGCCCTGG
GCTGCTGTGGAAGGACTACTTCCAGAGCCTGTGACTGTGTCTGGAACCTCTGGAGCCCTGACCTCTGGAGTGACACACCTTCCCT
GCTGTGCTGCAGAGCTCTGGCCTCTACAGCCTGTCTCTGTGGTCACTGTGCCCTCCTCCAGCCTGGGCACCCAGACCTACATCTG
ATGGGAAGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGCCAGCCC
GCCCAGCCCCAGAGGCTGTGGAGGCCCTCTGTGTTCCCTCTTCCCTCCAAGGCCAAGGACACCCCTGATGATCTCCAGGACCCCA
GAAGTCACCTGTGTGGTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGTGCACAA
TGCCAAGACCAAGCCAGAGAAGAGCAGTACAACCTCCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCCAGGACTGGCTGA
ATGGGAAGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGCCAGCCC
AGAGAGCCCCAGGTCTACACCTGCCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTCTGTGCTGTGAAAGGCTT
CTACCCAGTGACATTGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACCTACAAGACCACCCCTCCTGTGCTGGACTCTG
ATGGCTCCTTCTCCTGGTCTCCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTCATGCAT
GAGGCCCTGCACAACCACTACACCCAGAAGAGCCTGAGCCTGAGCCCTGGATGA

>Sequence ID 55: SI-75X1 Chain B Amino Acid Sequence

DVVMTQSPSTLSASVGDRTINQASESISWLAHYQQKPGKAPKLLIYEASKLASGVPSRFSGSGSGTEFTLTISLQPDDEFATY
YCQGYFYFISRTYVNSFGGKTKEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQD
SKDSTYSLSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGECGDKHTHTCPPEAPEAAGGSPSVFLFPPKPKDLMISRT
EVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQP
REPQVYITLPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTPVLDSGSEFFLVSKLTVDKSRWQQGNVFSVSMH
EALHNRFTQKSLSLSPG

>Sequence ID 56: SI-75X1 Chain B Nucleotide Sequence

GACGTGGTCTATGACACAGAGCCCTCCACACTGTCTGCCTCCGTGGCGGATAGAGTGACCATCAACTGTGAGGCCTCCGAGTCCAT
CTCCTCTTGGCTGGCTTGGTATCAGCAGAAGCCTGGCAAGGCCCTTAAGCTGCTGATCTACGAGGCTTCCAAGCTGGCCTCTGGCG
TGCCCTCTAGATTTTCCGGCTCTGGCTCTGGCACCGAGTTTACCCTGACAATCTCCAGCCTGCAGCCTGACGACTTCGCCACCTAC
TACTGCCAAGGCTACTTCTACTTCATCTCCCGGACCTACGTGAACCTCCTTCGGCGGAGGCACCAAGGTGGAGATCAAGCGTACGGT
GGCTGCCCCCTCTGTGTTCTATCTTCCACCCAGTGATGAGCAGCTGAAGAGTGGCACAGCCTCTGTGGTGTGCCCTGCTCAACAAC
TCTACCCCAAGAGAAGCAAGGTGCAGTGGAGGTGGACAATGCCCTGCAGAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAGGAC
AGCAAGGACAGCACCTACAGCCTGTCTCCACCTGACCTGTCCAAGGCTGACTATGAGAAGCACAAGGTGTATGCCCTGTGAGGT
GACCCACCAAGGCCCTGAGCAGCCCTGTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTCCCT
GCCCAGCCCCAGAAGCTGTGAGGCCCCCTCTGTGTTCCCTCTTCCCTCCAAGGCCAAGGACACCCCTGATGATCTCCAGGACCCCA
GAAGTCACCTGTGTGGTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGTGCACAA
TGCCAAGACCAAGCCAGAGAAGAGCAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCCAGGACTGGCTGA
ATGGGAAGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGCCAGCCC
AGAGAGCCCCAGGTCTACACCTGCCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGGCTGGTGAAGGCTT
CTACCCAGTGACATTGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACCTACAAGACCACCCCTCCTGTGCTGGACTCTG
ATGGCTCCTTCTTCTGTACAGCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTCATGCAT
GAGGCCCTGCACAACCGCTTACCCAGAAGAGCCTGAGCCTGAGCCCTGGATGA

>Sequence ID 57: SI-75X2 Chain A Amino Acid Sequence

EVQLVESGGGLVQPGGSLRLSCAASGFTISTNAMSWVRQAPGKLEWIGVITGRDITYYASWAKGRFTISRDNKNTLYLQMNSLR
AEDTAVYYCARDGSSAITSNNIWQGGLTVTVSSASTKGPSVFPLAPSSKSTSGGTAAALGCLVKDYFPEPVTVSWNSGALTSGVHT
FPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVPEPKSCDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMI
SRTPVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKG
QPREPQVYTLPPSRDELTKNQVSLCAVKGFPYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFC
SV MHEALHNHYTQKSLSLSPG

>Sequence ID 58: SI-75X2 Chain A Nucleotide Sequence

GAGGTGCAGCTGGTTGAATCTGGCGGAGGATTGGTTTCAGCCTGGCGGCTCTCTGAGACTGTCTTGTGCCGCTTCTGGCTTCACCAT
CTCCACCAACGCCATGTCTGGGTCCGACAGGCTCTGGCAAAGGCCCTGGAATGGATCGGCGTGATCACCGGCAGAGATATTACCT
ACTACGCCTCTGGGCAAGGGCAGATTACCATCAGCCGGGACAACTCCAAGAACACCCCTGTACCTGCAGATGAACTCCCTGAGA
GCCGAGGACACCGCGTGTACTACTGTGCTAGAGATGGCGGCAGCAGCGCCATCACCTCCAACATATTGGGGCCAGGGCACCT
GGTCACTGTGTCTCTGCTAGCACAAAGGCCCTCTGTGTTCCCTCTGGCCCCCTCTCCAAGAGCACCTCTGGAGGCACTGTCTG
CCCTGGGCTGCCTGGTGAAGGACTACTTCCAGAGCCTGTGACTGTCTCTGGAACCTCTGGAGCCCTGACCTCTGGAGTGCACACC
TTCCCTGCTGTGCTGCAGAGCTCTGGCCTCTACAGCCTGTCTCTGTGGTCACTGTGCCCTCTCCAGCCTGGGCACCCAGACCTA
CATCTGCAATGTGAACCAAGCCCTCCAACACCAAGGTGGACAAGAGAGTGGAGCCCAAGTCTGTGACAAGACCCACACCTGCC
CTCCCTGCCAGCCCCAGAGGCTGTGGAGGCCCTCTGTGTTCCCTCTTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGG
ACCCAGAGAAGTGTGTTGGTGGTGGATGTGTCCCATGAAGACCCAGCAAGTGAAGTTCAACTGGTATGTGGATGGATGGAGTGCAC
GCACAATGCCAAGACCAAGCCAGAGAAGAGCAGTACAACCTCCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACT
GGCTGAATGGGAAGGAGTACAAGTGTGCTGTGTCCAACAGGCCCTGCCTGCCCCCATTTGAGAAGACCATCTCCAAGGCCAAGGGC
CAGCCCAGAGAGCCCCAGGTCTACACCCCTGCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTCTGTGCTGTGAA
AGGCTTCTACCCCAAGTGAACATGTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACACTACAAGACACCCCTCCCTGTGCTGG
ACTCTGATGGCTCCTTCTTCTGGTCTCCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCTGCTGTGTC
ATGCATGAGGCCCTGCACAACCACTACACCCAGAAGAGCCTGAGCCTGAGCCCTGGATGA

>Sequence ID 59: SI-75X2 Chain B Amino Acid Sequence

QSALTQPASVSGSPGQSITISCTGTSSDVGGYNFVSWYQQHPGKAPKLMIIYDVSDRPSGVSDRFSGSKSGNTASLIISGLQADDEA
DYCYSSYGSSTHVIFFGGGTKVTVLGGGSGGGGSGGGGSGGGGSGVQLQESGGGLVKPGLSLSLSCAASGFTFSSYMSWVRQAP
GKLEWVANINRDGSASYVDSVKGRFTISRDDAKNSLYLQMNSLRAEDTAVYYCARDRGVGYFDLWGRGTLVTVSSGGGSGGGG
SDVMTQSPSTLSASVGDRTINCAASEISSWLAWYQQKPGKAPKLLIYEASKLASGVP SRFSGSGSGTEFTLTISLQPDDEFAT
YYCQGYFYFI SRTYVNSFGGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQ
DSKDYSTYLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGECGGDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMI
SRTPVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKG
QPREPQVYTLPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFC
SV MHEALHNRYTQKSLSLSPG

>Sequence ID 60: SI-75X2 Chain B Nucleotide Sequence

CAGTCTGCCCTGACTGACCTGCCTCCGTGTCTGGGTCTCCTGGACAGTCGATCACCATCTCCTGCACTGGAACAGCAGTGACGT
TGGTGGTTATACTTTGTCTCTTGGTACCAACAACAGGCAAGGCCCAAACTCATGATCATGATGTCACTGATCGGCCCT
CAGGGGTGTCTGATCGCTTCTCCGGCTCCAAGTCTGGCAACAGCGCCTCCCTGATCATCTCTGGCCTCCAGGCTGACGACGAGGCT
GATTATTACTGCAGTCTATATGGGAGCAGCAGCACTCATGTGATTTTCCGGCGGAGGGACCAAGGTGACCGTCTTAGGCGGTGGCGG
TAGTGGGGGAGGCGGTTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCAGAGTGCAATTGCAGGAGTCCGGGGGAGGCGCTGGTCA
AGCCTGGAGGGTCCCTGAGCCTCTCCTGTGCAGCCTCTGGATACCTTTAGTAGTTATTGGATGAGTGGGTCCGCCAGGCTCCA
GGGAAGGGGCTGGAGTGGGTGGCCAAACATAAACCCGCGATGGAAGTGCAGATTACTATGTGGACTCTGTGAAGGGCCGATTACCAT
CTCCAGAGACGACGCCAAGAACTCACTGTATCTGCAAATGAACAGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAG
ATCGTGGGGTGGGCTACTTCGATCTCTGGGGCGGTGGCACCCCTGGTCACCGTCTCGAGCGGCGGTGGAGGGTCCGGCGGTGGTGG
TCAGACGTCGTGATGACCCAGTCTCCTTCCACCCGTGTCTGCATCTGTAGGAGACAGAGTCACCATCAATTGCCAAGCCAGTGAGAG
CATTAGCAGTTGGTTAGCCTGGTATCAGCAGAAACAGGGAAGGCCCTAAGCTCCTGATCTATGAAGCATCCAACTGGCATCTG
GGGTCCCATCAAGGTTCAAGGCGAGTGGATCTGGGACAGAATTCACTCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGCAACT
TATTACTGCCAAGGCTATTTTATTTTATTAGTCGTAATTATGTAATTTCTTTCGGCGGAGGGACCAAGGTGGAGATCAAACTGAC
GGTGGTGTCCCCCTCTGTGTTTCACTTCCACCCAGTGTGATGAGCAGCTGAAGAGTGGCACAGCCTCTGTGTTGCTGTGCTCAACA
ACTTCTACCCAGAGAAGCCAAGGTGCAGTGGAAAGTGGACAATGCCCTGCAGAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAG
GACAGCAAGGACAGCACCTACAGCCTGTCTTCCACCCGTGACCCCTGTCCAAGGCTGACTATGAGAAGCACAAGGTGTATGCCTGTGA
GGTGACCCACAGGGCCTGAGCAGCCCTGTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTC
CCTGCCAGCCCCAGAAGCTGTGGAGGCCCTCTGTGTTCCCTCTTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACC
CCAGAAGTCACCTGTGTGGTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAAAGTGA
CAATGCCAAGACCAAGCCAGAGAAGAGCAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGC
TGAATGGGAAGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCCATTTGAGAAGACCATCTCCAAGGCCAAGGGCCAG
CCAGAGAGCCCCAGGTCTACACCCCTGCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGGTGGTGAAGG
CTTCTACCCAGTGCATTTGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACACTACAAGACACCCCTCCTGTGCTGGACT

CTGATGGCTCCTTCTCTCTGTACAGCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTCATG
CATGAGGCCCTGCACAACCGCTTCACCCAGAAGAGCCTGAGCCTGAGCCCTGGATGA

>Sequence ID 61: SI-7502 Chain A Amino Acid Sequence

EVQLVESGGGLVQPGGSLRLSCAASGFTISTNAMSWVRQAPGKLEWIGVITGRDITYYASWAKGRFTISRDN SKNTLYLQMNSLR
AEDTAVYYCARDGSSSAITSNNIWQGQTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHT
FPAVLQSSGLYSLSSVTVPPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISR
TPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKG
QPREPQVYTLPPSRDELTKNQVSLSCAVKGFPYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLVSKLTVDKSRWQQGNVFSCSV
MHEALHNHYTQKSLSLSPG

>Sequence ID 62: SI-7502 Chain A Nucleotide Sequence

GAGGTGCAGCTGGTGAATCTGGCGGAGGATTGGTTCAGCCTGGCGGCTCTCTGAGACTGTCTTGTGCCGCTTCTGGCTTCACCAT
CTCCACCAACGCCATGTCTGGGTCCGACAGGCTCCTGGCAAAGGCCTGGAATGGATCGGCGTGATCACC GGCCAGAGATATTACCT
ACTACGCCTCCTGGGCCAAGGGCAGATTACCATCAGCCGGGACAACCTCCAAGAACACCTGTACCTGCAGATGAACCTCCTGAGA
GCCGAGGACACCGCGGTGTACTACTGTGCTAGAGATGGCGGCAGCAGCGCCATCACCTCCAACAATATTTGGGGCCAGGGCACCT
GGTCACCTGTGTCCTCTGCTAGCACCAAAGGCCCTCTGTGTTCCCTCTGGCCCCCTCCTCCAAGAGCACCTCTGGAGGCACTGCTG
CCCTGGGCTGCCTGGTGAAGGACTACTTCCCAGAGCCTGTGACTGTGTCTGGAACCTCTGGAGCCCTGACCTCTGGAGTGCACACC
TTCCCTGCTGTGCTGCAGAGCTCTGGCCTCTACAGCCTGTCTCTGTGGTCACTGTGCCCTCCTCCAGCCTGGGCACCCAGACCTA
CATCTGCAATGTGAACCACAAGCCCTCCAACACCAAGGTGGACAAGAGAGTGGAGCCCAAGTCTGTGACAAGACCCACACCTGCC
CTCCCTGCCCCAGCCCCAGAGGCTGCTGGAGGCCCTCTGTGTTCCCTCTTCCCTCCCAAGCCCAAGGACACCTGATGATCTCCAGG
ACCCAGAAAGTACCTGTGTGGTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGGT
GCACAATGCCAAGACCAAGCCAGAGAAGAGCAGTACAACCTCCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCAGGACT
GGCTGAATGGGAAGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGC
CAGCCCAGAGAGCCCCAGGTCTACACCTGCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTCTGTGCTGTGAA
AGGCTTCTACCCAGTGACATTGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACCTACAAGACCACCCCTCCTGTGCTGG
ACTCTGATGGCTCCTTCTTCTGTGCTTCCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTC
ATGCATGAGGCCCTGCACAACCACTACACCCAGAAGAGCCTGAGCCTGAGCCCTGGATGA

>Sequence ID 63: SI-7502 Chain B Amino Acid Sequence

DVVMTQSPSTLSASVGRDVTINQASESISSWLAWYQQKPKGKAPKLLIYEASKLASGVPSRFSGSGSGTEFTLTISLQPDDEFATY
YCQGYFYFISRTYVNSFGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCCLNNFYPREAKVQWKVDNALQSGNSQESVTEQD
SKDSTYLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGECGDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTF
EVTCTVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQP
REPQVYTLPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSV MH
EALHNRFTQKSLSLSPG

>Sequence ID 64: SI-7502 Chain B Nucleotide Sequence

GACGTGGTCATGACACAGAGCCCTTCCACACTGTCTGCCTCCGTGGGCGATAGAGTGACCATCAACTGTCAGGCCTCCGAGTCCAT
CTCCTCTTGGCTGGCTTGGTATCAGCAGAAGCCTGGCAAGGCCCTAAGCTGCTGATCTACGAGGCTTCCAAGCTGGCCTCTGGCG
TGCCCTCTAGATTTTCCGGCTCTGGCTCTGGCACCGAGTTTACCTGACAATCTCCAGCCTGCAGCCTGACGACTTCGCCACCTAC
TACTGCCAAGGCTACTTCTACTTCTATCTCCCGACCTACGTGAACCTCCTTCGGCGGAGGCACCAAGGTGGAGATCAAGCGTACGGT
GGCTGCCCCCTCTGTGTTTCTTCTCCACCCAGTGATGAGCAGCTGAAGAGTGGCACAGCCTCTGTGGTGTGCCTGCTCAACAAC
TCTACCCAGAGAAGCCCAAGGTGCAGTGGAGGTGGACAATGCCCTGCAGAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAGGAC
AGCAAGGACAGCACCTACAGCCTGTCTCCACCTGACCTGTCCAAGGCTGACTATGAGAAGCACAAAGGTGTATGCCTGTGAGGT
GACCCACCAAGGCCCTGAGCAGCCCTGTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTCCT
GCCCAGCCCCAGAAGCTGTGGAGGCCCTCTGTGTTCCCTCTTCCCTCCCAAGCCCAAGGACACCTGATGATCTCCAGGACCCCA
GAAGTCACCTGTGTGGTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGAAGTGCACAA
TGCCAAGACCAAGCCAGAGAAGAGCAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCAGGACTGGCTGA
ATGGGAAGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGCCAGCCC
AGAGAGCCCCAGGTCTACACCTGCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGCCTGGTGAAGGCTT
CTACCCAGTGACATTGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACCTACAAGACCACCCCTCCTGTGCTGGACTCTG
ATGGCTCCTTCTTCTGTACAGCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTCATGCAT
GAGGCCCTGCACAACCGCTTCACCCAGAAGAGCCTGAGCCTGAGCCCTGGATGA

>Sequence ID 65: SI-7507 Chain A Amino Acid Sequence

QVQLQESGGRLVQPGPEPLSLTCKTSGIDLSSNAIGWVRQAPGKLEWIGVIFGSGNTYYASWAKGRFTISRSTSTVYLKMNLSRSE
DTAIYYCARGGYSSDIWQGTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQS

>Sequence ID 66: SI-7507 Chain A Nucleotide Sequence

>Sequence ID 67: SI-7507 Chain B Amino Acid Sequence

>Sequence ID 68: SI-7507 Chain B Nucleotide Sequence

>Sequence ID 69: SI-68P13 Chain A Amino Acid Sequence

57

>Sequence ID 70: SI-68P13 Chain A Nucleotide Sequence

>Sequence ID 71: SI-68P13 Chain B Amino Acid Sequence

>Sequence ID 72: SI-68P13 Chain B Nucleotide Sequence

58

TTAGCCTCACCTGTGCCTTCAGTGGTTTTTCTCTTAGCTAGCGGTATGGGGTTCGGCTGGATTCCGGCAGCCTCCCGGCAAAGGT
CTTGAGTGGTGGCTCACATTTGGTGGGACGACGACAAACGGTATAATCCTGCCTTGAAAAGTCCGGCTGACCATTAGTAAGGATAC
CTCAAAAAATCAAGTGTACTTGCAATGAATAGCCTTGACGCCGAGGATACGGCTGTATATTATTGCGCGCGGATGGAAGTCTGGT
CTTACTACTTTGATTATTGGGGGAGGGGACTCTCGTCACGGTCTCGAGCGCGGTGGAGGGTCCGGCGGTGGTGGATCAGACGTC
GTGATGACCCAGTCTCCTCCACCTGTCTGCATCTGTAGGAGACAGAGTCACCATCAATTGCCAAGCCAGTGAGAGCATTAGCAG
TTGGTTAGCCTGGTATCAGCAGAAACAGGGAAAGCCCCTAAGCTCCTGATCTATGAAGCATCCAACTGGGCATCTGGGGTCCCAT
CAAGGTTCCGCGGAGTGAGTCTGGACAGAATTCACTCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGCAACTTATTACTGC
CAAGGCTATTTTTATTTATAGTCTGTAATTTCTTTTCGGCGGAGGGACCAAGGTGGAGATCAAACTGACGGTGGCTGC
ACCATCTGTCTTCATCTTCCGCCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTTGTGTGCCTGCTGAATAACTTCTATC
CCAGAGAGGCCAAAGTACAGTGGAGGTGGATAACGCCCTCCAATCGGGTAACTCCAGGAGAGTGTACAGAGCAGGACAGCAAG
GACAGCTTACAGCCTCAGCAGCACCTGACGCTGAGCAGAAAGCAGACTACGAGAAACACAAAGTCTACGCTCGCAAGTCAACCA
TCAGGGCCTGAGCTCGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGACAAAACCTCACACATGCCACCGTGGCCAG
CACCTGAAGCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACACCTCATGATCTCCCGACCCCTGAGGTC
ACATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGAGCGCGTGGAGGTGCATAATGCCAA
GACAAAGCCCGGAGGAGCAGTACAACAGCAGCTACCGTGGCAGCAGGTGGCAGCGGGGACCGTCTTCTCATGCTGATGCATGAGGCT
AGGAGTACAAGTGCAGCGTCTCCAAAGAGCCCTCCAGCCCCATCGAGAAAACCATCTCAAAGCCAAAGGGCAGCCCCGAGAA
CCACAGGTGTACACCTGCCCCCAAGCCGGGATGAGCTGACCAAGAACAGGTGAGCCTGTGGTGCCTGGTCAAAGGCTTCTATCC
CAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCGAGCGGAGAACACTACAAGACCAGCCTCCCGTGGTGGACTCCGACGGCT
CCTTCCCGGAGCGGGTCCGGTACTGAGTTTACTTTGACGATATCTCCCTCCAACCCGAGACTTCGCCAGCATATTGATGAGGCT
CTGCACAACAGATTACGCAGAGAGCCTCTCCCTGTCTCCGGGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCCGACATTGAGAT
GACACAGTCAACCTGACGCTCTCAGCCTCAGTAGGCGATAGGGTGACTATCACCTGCCAAGCCTCCCAATCTATAAGTTCACACC
TCAACTGGTATCAACAGAAACCCGGTAAAGCACCAGAGTGTCTCATCTACAAGGCATCAACTCTTGCCTCAGGTGTGCCTAGTCGC
TTCTCCCGGAGCGGGTCCGGTACTGAGTTTACTTTGACGATATCTCCCTCCAACCCGAGACTTCGCCAGCATATTGATGAGGCT
GGGTATAGTTGGGGAAATGTTGACAATGTGTTGGAGGGGGAACGAAAGTGACTGTGTTGGAGGGGGAGGAAGTGGCGCGGGC
GAAGCGGAGGTGGTGGCTCCGGCGGGGGTGAAGCGAAGTGCAATTGCTCGAAAGTGGTGGCGGACTTGTGCAACCTGGTGAAGC
CTCTCACTCTCTTGGCGGGGAGTGGTTTTAGCTTCAGTAGCGGCTACGATATGTGCTGGGTAAAGCAGGCTCCTGGTAAAGCCCT
TGAGTGGATTGCGTGTATCGCCCGGGGTCTGCTGGTATAACATACGATGCAAACTGGCGGAAAGGGCCTTCAATCTCCAGGG
ACAACCTCAAAAATACATTGTACCTCCAGATGAATAGCCTGAGAGCCGAAGACACCGCAGTCTACTATTGCGCAAGGTGAGCATTT
AGCTTCGATTATGCAATGGATCTTTGGGGCCAGGGGACGCTCGTCACCGTCTCATCTTGA

>Sequence ID 73: SI-68P17 Chain A Amino Acid Sequence

DVVMTQSPSTLSASVGDRTINCQASESISWLAWYQKPKGKAPKLLIYEASKLASGVPSRFSGSGSGTEFTLTISLQPDDEFATY
YCQGYFYFISRTYVNSFGGTKVEIKGGGSGGGGSGGGGSGGGGSEVQLVESGGGLVQPGGSLRLSCAASGFTISTNAMSWSRQA
PGKLEWIGVITGRDITYYASWAKGRFTISRDNKNTLYLQMNLSRAEDTAVYYCARDGGSSAITSNINWQGTGLVTVSSGGGSG
GGGSQVQLQSGSPGLVKPSETLSITCTVSGFSLTNYGVHWIRQAPGKLEWLGVIWSSGNTDYNTPFTSRFTITKDNSKNQVYFKL
RSVRADDTAIYYCARALTYDYEFAYWGGTGLVTVSASTKGPSVFPLAPSSKSTSGGTAALGLVKDYFPEPTVSWNSGALTSG
VHTFPAVLQSSGLYSLSSVTVFPPSSSLGTQTYICNVNHKPSNTKVDKRVFEPKSDKTHTCPPCPAPEAAGGSPVFLFPPKPKDTLM
ISRTEPVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISK
AKGQPREPQVYTLPPSRDELTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFS
CSVMHEALHNHYTQKSLSLSPGGGGSGGGGSDVVMTQSPSSVSASVGDRTITCQASQNIITYLSWYQKPKGKAPKLLIYAAANL
ASGVPSRFSGSGSGTDFLTISDLEPGDAATYYCQSTYLGTLDYVGGAFGGGKLTVLGGGGSGGGGSGGGGSGGGGSEVQLVESGG
GLVQPGGSLRLSCTASGFTISSYHMQWVRQAPGKLEYIGTISGGNVYASSARGRFTISRPSKNTVDLQMNLSRAEDTAVYYC
ARDSGYSDPMWQGTLVTVS

>Sequence ID 74: SI-68P17 Chain A Nucleotide Sequence

GACGTCGTGATGACCCAGTCTCCTCCACCTGTCTGCATCTGTAGGAGACAGAGTCACCATCAATTGCCAAGCCAGTGAGAGCAT
TAGCAGTTGGTTAGCCTGGTATCAGCAGAAACAGGGAAAGCCCCTAAGCTCCTGATCTATGAAGCATCCAACTGGCATCTGGGG
TCCCATCAAGGTTACGCGGAGTGATCTGGGACAGAATTACTCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGCAACTTAT
TACTGCCAAGGCTATTTTTATTTATAGTCGTACTTATGTAATTTCTTTTCGGCGGAGGGACCAAGGTGGAGATCAAAGCGCGTGG
CGGTAGTGGGGGAGCGGTTCTGGCGGGGAGGGTCCGGCGGTGGAGGATCAGAGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTGG
TCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCAACATCAGTACCAATGCAATGAGCTGGGTCCGCCAGGCT
CAGGGAAGGGGCTGGAGTGGATCGGAGTCATTACTGGTCTGATACATACACTACGCGAGCTGGCGGAAAGCAGATTACCAT
CTCCAGAGACAATCCAAGAACACGCTGTATCTTCAAATGAACAGCCTGAGAGCCGAGGACACGGCTGTGTATTACTGTGCGAGAG
ACGGTGGTTCTTCTGCTATTACTAGTAACAACATTTGGGGCCAGGGAACCTGGTCACCGTCTCGAGTGGCGGTGGAGGGTCCGGC
GGTGGTGGATCACAAGTACAGTTGACGAATCCGGTCCCGGTCTCGTCAAACCGAGTGAGACGCTTAGTATAACGTGTACTGTTTC
AGGCTTTAGCCTTACGAATATGGAGTTCACTGGATTCCGCGAGGACCCGGCAAGGTTTGAATGGCTGGGTGTTATTTGGTCAG
GTGGAATACAGACTATAACACCCCTTTACAAGTCGGTTACAATTACGAAAGATAATTCAAAAATCAAGTTTATTTCAAGTTG
AGATCCGTCGCGCGGACGACACTGCGATCTACTATTGTGCGAGGGCACTGACCTACTACGATTACGAATTTGCGTATTGGGGGCA
AGGGAAGTCTTGTAAAGTCTCCAGTGCTAGCACAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAGCACCTCTGGGG
GCACGCGGCCCTGGCTGGTCAAGGACTTCCCCGAACCGGTGACGGTGTCTGGAACCTCAGCGCCCTCAGCGCGGCTGACCGCGG
GTGCACACCTTCCGGCTGTCTACAGTCTCAGGACTTACTCCCTCAGCAGCGTGGTACCGTGGCTCCAGCAGCTTGGGCAC

CCAGACCTACATCTGCAACGTGAATCACAAGCCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAATCTTGTGACAAAACCTC
ACACATGCCACCGTGGCCAGCACCTGAAGCCGCGGGGGGACCGTCAAGTCTTCTCTTCCCCCAAAACCAAGGACACCCCTCATG
ATCTCCCGGACCCCTGAGGTACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGG
CGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAAACAGCACGTACCGTGTGGTCAGCGTCTCACCGTCTCTGC
ACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGGCGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAA
GCCAAAGGGGAGCCCGAGAACCAAGGTGTATACCTGCCCCCATCCCGGGATGAGCTGACCAAGAACAGGTGAGCCTGTCTGT
CGCCGTCAAAGGCTTCTATCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGCGAGCCGAGAACAACTACAAGAACACGCCTC
CCGTGCTGGACTCCGACGGTCTCTTCTCTCTGAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCA
TGCTCGGTGATGCATGAGGTCTGCAACAACCACTACACGAGAAGAGCCTCTCCCTGTCTCCGGTGGCGGCGCGGTTAGGTGG
TGGGGGATCCGACGTTGTGATGACGAGTCTCCTAGTTGAGTATCAGCCTCTGTTGGGGATCGAGTCACGATTACATGCCAGGCGA
GCCAAATATATTAGGACGTATCTGCTTGGTATCAACAAAGCCTGTAAGGCTCCAAACTCCTCATTACGCCGCTGCCAAGCTG
GCTAGTGGAGTACCTTACGCTTTAGTGGGTGAGTTCTGGAACAGATTTTACGTTGACGATCTCCGATTGGAACACAGGGGACGC
TGCCAGTATATTGCCAGTCCACCTACCTCGGGACTGACTACGTTGGTGGGCGTTTGGCGGAGGAACAAACTCAGTGTACTTG
GTGGTGGTGGTTAGCGGGGGGGGTTCCGGCGGAGGCGGTTCTGGGGTGGAGGTTCCGAGGTTGAGTTGGTTGAAAGTGGGGGG
GGAGTCTTACGCTGGAGGCTCTTGGGACTTTCTGACCGCTTCTGGGTTACTATAAGTTTATATGATATGATATGATATGATATG
ACAGGCGCCTGGTAAGGGACTTGAATACATAGGAACAATAAGCTCTGGTGGTAACGTCTATTACGCTCATCCGCGGGGGGAGGT
TTACATTTTCCAGGCTTCTAGCAAAAACAGGTAGATCTGCAATGAAGTCTCTTCCGCTGAAGATACAGCAGTCTACTACTGC
GCCAGGATTACGGGTATTCTGACCCATGTGGGGGAGGGCACATTGGTTACCGTGTCTCTTGA

>Sequence ID 75: SI-68P17 Chain B Amino Acid Sequence

ENVLTQSPASLSASPGERVITITCSASSSVSYMHWYQQKPKQAPKLWIYDTSKLSGVPSPRFSGSGSGNDHTLTISSEMPEDFATYY
CFQGSVYPFTFGQGTQVTVLGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGG
LEWLAIHWDDDKRYNPALKSRITISKDTSKNQVYLMQNSLDAEDTAVYYCARMELWSYFDYWGQGLTVTVSSGGGGSGGGGSGGGG
VLTQSPSTLSVSPGERATFSCRASQSIGTNIHWYQQKPKPRLIKYASESISGIPDRFSGSGSGTEFTLTISVQSEDFAVYYC
QQNNWPTTFPGTKLTVLRTVAAPSVFIFPPSDEQLKSGTASVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSSTYS
LSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGECGGDKTHTCPPCPAPEAAGGPSVFLLPFPKPKDTLMISRTPEVTCVVV
DVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVHLQDNLNGKEYKCAVSNKALPAPIEKTIKAKGQPREPQVY
LPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLYSLKTVDKSRWQQGNVFSVCSVMHEALHNR
TQKSLSLSPGGGGSGGGGSDIQMTQSPSTLSASVGRDRTITCQASQSISSHLNHWYQQKPKGAPKLLIYKASTLASGVPSPRFSGSG
SGTEFTLTISLQPDFFATYYCQQGYSWGNVDNVFGGGTKVTVLGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGG
AASGFSFSSGYDMCWVRQAPGKLEWIAICIAAGSAGITYDANWAKGRFTISRDNKNTLYLQMNSLRAEDTAVYYCARSAFSDYA
MDLWGGGTLTVSS

>Sequence ID 76: SI-68P17 Chain B Nucleotide Sequence

GAAATGTATTGACACAGAGCCCCGCTCCCTCAGTGCCTCACCTGGGGAAAGGGTAACATCACTTGCTCTGCATCAAGCAGCGT
CTCATACATGCATTGGTATCAACAAAAGCCTGGACAGGCCCCAAGCTCTGGATATACGATACGAGCAAGCTGGCTTCCGGCGGTAC
TAGCCCGCTTCAGTGCTTCGGCTCAGGCAACGATCACACCCCTTACGATTTCCAGTATGGAACCCGAAGATTTTGCACACTTATTAT
TGTTTCCAGGGGAGCGTGATCCCATTCACCTTCCGGGAGGGGACAAAAGTGACCGTCTAGGCGGTGGCGGTAGTGGGGGAGGCGG
TTCTGGCGGCGGAGGTCGGCGGTGGAGGATCAGAGTACATTTGAAGGAATCTGGCCCCGGCCTTGTTACGACAGGACAGACCC
TTAGCTCACCTGTGCCTTCAGTGGTTTTCTCTTAGCCTAGCGGTATGGGGTGGCTGGATTCCGCGAGCTCCCGGCAAGGT
CTTGAGTGGTTGGCTCACATTTGGTGGGACGAGCAAAACGGTATAATCCTGCCTTGAAAAGTCGGCTGACCATAGTAAGGATAC
CTCAAAAATCAAGTGTACTTGCAATGAATAGCCTTGACGCCGAGGATACGGCTGTATATTATGCGCGCGGATGGAACCTCTGGT
CTTACTACTTTGATTATTGGGGGAGGGGACTCTCGTACCGGTCTCGAGTGGCGGTGGAGGTCGGCGGTGGTGGATCAGAAATC
GTCTTACACAATCTCTAGCACACTGAGTGTGAGCCCCGGGCAACGCGGACTTTCTCTTGACGGGCAAGTCAATCCATAGGGAC
TAATATACATTTGGTATCAACAAAAGCCAGGTAAACACCCAGGCTTTTGTATTAAGTATGCAAGTGAGTCTATTTCGGGTATCCCTG
ACCGCTTCTCTGGATCAGGCAAGTGGCACAGATTCACACTACCATATCTAGTGTGCAATCAGAGGACTTCGCGGTGTATTACTGC
CAACAGAATAATACTGGCCGACTACCTTCGGACCCGGTACAAAGCTGACCGTTTACGTACGGTGGCTGCACCATCTGTCTTCAT
CTTCCCGCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTTGTGCTGCTGAATAACTTCTATCCCAGAGAGGCAAG
TACAGTGGAAAGGTGGATAACGCCCTCCAATCGGGTAACTCCAGGAGAGTGTACAGAGCAGGACAGCAAGGACAGCCTACAGC
CTCAGCAGCACCTGACGCTGAGCAAAGCAGACTACGAGAAACAAAGTCTACGCTGCGAAGTCACCATCAGGGCTGAGCTC
GCCCCGTCAAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGCAAAAACCTCACACATGCCACCGTGCCAGCACCTGAAGCCGGG
GGGGACCGTCACTCTTCTTCCCCCAAAACCAAGGACACCTCATGATCTCCCGACCCCTGAGGTGCACATGCGGTGGTGGT
GACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGA
GGAGCAGTACAACAGCACGTACCGTGTGGTCAAGCTCCTCACCGTCTGCACAGGACTGGCTGAATGGCAAGGAGTACAAGTGGC
CGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACC
CTGCCCCCAAGCCGGGATGAGCTGACCAAGAACCAGGTCAAGCTGTGGTGGCTGGTCAAAGGCTTCTATCCCAGCGACATCGCGGT
GGAGTGGGAGAGCAATGGGCGCCGAGAACAACTACAAGACCACGCTCCCGTGGTGGACTCCGACGGCTCTTCTTCTCTATA
GCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACAGATTC
ACGAGAGAGGCTCTCCCTGTCTCCGGTGGCGGTGGAGGTCGGCGGTGGTGGATCCGACATTCAGATGACACAGTCAACGCTC
TAGCCTCTCAGCTCAGTACGCGATAGGGTGAATACCTGCCAAGGCTCCCAATCTATAAGTTTCAACCTCAGCTGATCAAC
AGAAACCCGGTAAAGCACCGAAGTGTCTCATCTACAAGGCATCAACTCTGCCTCAGGTGTGCCTAGTGCCTTCTCCGGGAGCGGC

TCCGGTACTGAGTTTACTTTGACGATATCTTCCCTCCAACCCGACGACTTCGCCACATACTATTGTGTCAGCAGGGTTATAGTTGGGG
AAATGTTGACAATGTGTTTGGAGGGGGAACGAAAGTGAAGTGTGTTGGGAGGGGAGGAAGTGGCGGGCGCGGAAGCGGAGGTGGTG
GCTCCGGCGGGGGTGAAGCGAAGTGAATGCTCGAAAGTGGTGGCGGACTTGTCAACCTGGTGAAGCCTCTCACTCTCTTGC
GCGGCGAGTGGTTTTAGCTTCAGTAGCGGCTACGATATGTGCTGGGTAAGACAGGCTCCTGGTAAAGGCTTGAGTGGATTGCGGTG
TATCGCCGCGGGTCTGCTGGTATAACATACGATGCAAACTGGGCGAAAGGCGCTTCAATCTCCAGGGACAACCTAAAAAATA
CATTGTACCTCCAGATGAATAGCTGAGAGCCGAGACACCGCAGTCTACTATTGCGCAAGGTGAGCATTAGCTTCGATTATGCA
ATGGATCTTTGGGGCCAGGGGACGCTCGTACCGTCTCATCTTGA

>Sequence ID 77: SI-68P15 Chain A Amino Acid Sequence

EIVMTQSPSTLSASVGDRVIITCQASESISSWLAWYQQKPKGKAPKLLIYEASKLASGVPSRFSGSGSGAEFTLTISLQPDFDFTATY
YCQGYFYFISRTYVNSFGQGTGLTVLGGGGSGGGGSGGGGSEVQLVESGGGLVQPGGSLRLSCAASGFTISTNAMSWSVRQA
PGKLEWVGITGRDITYYASWAKGRFTISRDTSKNTVYLQMNLSRAEDTAVVYCARDGSSAITSNINWGQGLVTVSSGGGGSG
GGGSQVQLQQSGPGLVKPSETLSITCTVSGFSLTNYGVHWIRQAPGKLEWLGVIWSSGNTDYNTPFTSRFTITKDNSKNQVYFKL
RSVRADDTAIYYCARALTYDYEFAYWQGTGLTVSSASTKGPSVFLAPSSKSTSGGTAAALGCLVKDYFPEPVTVSWNSGALTSG
VHTFPAVLQSSGLYSLSSVTVPSSSLGTQTYICNVNHKPSNTKVDKRVKPKSCDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLM
ISRTEPVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTI
SKAKGQPREPQVYTLPPSRDELTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLVSKLTVDKSRWQQGNVFS
CSVMHEALHNHYTQKSLSLSPGGGGSGGGGSDVMTQSPSSVSASVGRVITTCQASQNIIRTYLSWYQQKPKGKAPKLLIYAAANL
ASGVPSRFSGSGSGTDFTLTISDLEPGDAATYYCQSTYLGTDYVGGAFGGGTGLTVLGGGGSGGGGSGGGGSEVQLVESGG
GLVQPGGSLRLSCTASGFTISSYHMQWVRQAPGKLEYIGTISGGNVYASSARGRFTISRPSKNTVDLQMNLSRAEDTAVVYC
ARDSGYSDPMWQGTGLTVTVSS

>Sequence ID 78: SI-68P15 Chain A Nucleotide Sequence

GAAATCGTTATGACGCAGAGTCCCTCCACGCTCTCCGCTAGTGTGGGGATCGCGTCATTATCACATGCCAGGCTCCGAGTCAAT
CAGCAGCTGGCTTGATGGTATCAACAGAGCCGGGAAAAGCTCCTAAATTGCTGATCTATGAAGCGTCAAAATGGCGTCTGGTG
TCCCATCTAGGTTCTCCGGCTCTGGGTCTGGTGCAGGAATTTACTTTGACAATCTCCAGTCTTCAACCAGACGATTTGCTACCTAC
TACTGCCAAGGGTATTTCTATTTTATAAGCCGGACATATGTAAACTCCTTCGGCCAAGGAACAAAGTTGACTGTTCTTGGTGGCGG
AGGCAGTGGTGGCGGGGGCAGCGGAGGTGGTGGTTCAGGGGGTGGTGGGAGCGAAGTCCAATTGGTAGAAAAGTGGCGGTGGTCTGG
TGCAACCTGGTGGATCTCTTCGCTCTCATGCGCCGCTAGTGGCTTTACTATTTCAACTAATGCGATGAGCTGGGTTCGCCAGGCC
CCCGGCAAGGACTTGAGTGGGTTCGGCTCATCACCGGCAGGGACATTACATACTATGCGAGTTGGGCAAGGGCAGGTTACGAT
TAGCCGCGATACCTCAAGAAATACCGTTTACCTTCAAATGAATAGCTTGAGGGCGGAAGACACAGCTGTGTATTACTGCGCGAGGG
ATGGAGGTAGTTCGCCATAACTTCCAACAACATATGGGACAAAGGCACGCTGGTACTGTCTCGAGTGGCGGTGGAGGGTCCGGC
GGTGGTGGATCACAGTACAGTTGCAGCAATCCGGTCCCGGTCTCGTCAAACCGAGTGAGACGCTTAGTATAACGTGTACTGTTTC
AGGCTTTAGCCTTACGAATATGGAGTTCAGTGGATTCCGCGAGGCACCCGGCAAAGGTTTGAATGGCTGGGTGTTATTTGGTCAG
GTGGAAATACAGACTATAACACCCCTTTACAAGTCGGTTCACAAATACGAAAGATAATTCCAAAAATCAAGTTTATTTCAAGTTG
AGATCCGTCGCGCGGACGACACTGCGATCTACTATTGTGCGAGGGCACTGACCTACTACGATTACGAATTTGCGTATTGGGGGCA
AGGGACTCTTGTAACAGTCTCCAGTGCTAGCACCAAGGGCCCTCGGTCTTCCCGCTGGCACCCCTCCTCCAAGAGCACCTCTGGGG
GCACAGCGGCCCTGGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCTGGAAGTCAAGGCGCCCTGACCAGCGGC
GTGCACACCTTCCCGGCTGTCTACAGTCTCTAGGACTTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCAC
CCAGACCTACATCTGCAACGTGAATCACAAAGCCAGCAACCAAGGTGGACAAGAGAGTTGAGCCCAAATCTTGTGACAAAATC
ACACATGCCACCGTGCCAGCACCTGAAGCCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACACCCCTCATG
ATCTCCCGGACCCCTGAGGTACATGCGTGGTGGTGGACGTTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGG
CGTGAGGATGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAAACAGCACGTACCGTGTGGTCAAGCTCCTCACCCTCTGC
ACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGGCGGCTCTCCAACAAAGCCCTCCAGCCCCATCAGAGAAACCATCTCCAAA
GCCAAAGGGGACCCCGAGAACCAAGGTGATACCTGCCCTGCCCTCCCGGATGAGCTGACCAAGAACAGGTGACGCTGTCTCTG
CGCGTCAAAGGCTTCTATCCAGCGACATCGCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTC
CCGTGCTGGACTCCGACGGCTCTTCTCTCTCTGAGCAAGCTCACCCTGGACAAAGAGCAGGTGGCAGCAGGGGAACGCTTCTCA
TGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGAGAGAGCTCTCCCTGTCTCCGGGTGGCGGCGCGGTTACAGTGG
TGGGGGATCCGACGTTGTGATGACGAGTCTCTAGTTAGTATCAGCTCTGTGGGGATCGAGTACGATTACATGCCAGGCGA
GCCAAATATATAGGACGTATCTGTCTTGGTATCAACAAAGCCTGGTAAGGCTCCAAACCTCCTCATTTACGCCGCTGCCAACTTG
GCTAGTGGAGTACCTTACGCTTTAGTGGGTGAGTTCTGGAACAGATTTACGTTGACGATCTCCGATTGGAACAGGGGACGC
TGCCACGTATATTGCCAGTCCACCTACCTCGGGACTGACTACGTTGGTGGGGCTTTGGCGGAGGAACAAACTCACTGTACTTG
GTGGTGGTGGTTCAGGCGGGGGGGTTCGGCGGAGGCGGTTCTGGGGTGGAGGTTCCGAGGTTCAAGTGGTGAAGTGGGGGG
GGACTCGTTTACGCTGGAGGCTCTTTCGCACTTTCTGTACCGCTTCTGGGTCACTATAAGTTATATCATATGCAATGGGTAAAG
ACAGGCGCCTGGTAAGGGAAGTGAATACATAGGAACAATAAGCTCTGGTGGTAACGCTCTATTACGCCTCATCCGCGCGGGGAGGT
TTACAATTTCCAGGCTTTAGCAAAAACACGGTAGATCTGCAATGAAGTCTCTTCGCGCTGAAGATACAGCAGTCTACTACTGC
GCCAGGATTACAGGTATTCTGACCCCATGTGGGGGAGGGCACATTGGTTACCGTGTCTCTTGA

>Sequence ID 79: SI-68P15 Chain B Amino Acid Sequence

ENVLTQSPASLSASPGERVITITCSASSSVSYMHWYQQKPGQAPKLIWYDTSKLASGVPSRFSGSGSGNDHTLTITSSMEPEDFATYY
 CFQGSVYPFTFGQGTQKVTVLGGGSGGGGSGGGGSGGGGSGVTLKESGPGVLVQPGQTLTLTCAFSGFSLSSTSGMGVWIRQPPGKG
 LEWLAHIWDDDKRYNPALKSRLTISKDTSKNQVYLQMNSLDAEDTAVYYCARMELWSYFYDYWGQGTTLVTVSSGGGSGGGGSEI
 VLTQSPSTLSVSPGERATFSCRASQSIGTNIHWYQQKPGKPPRLIKYASESISGIPDRFSGSGSGTEFTLTITSSVQSEDFAVYYC
 QQNNNWPTTFPGTKLTVLRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSYTS
 LSSTLTLSKADYEKHKVYACEVTHQGLSPVTKSFNRGECGGDKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVTCVVV
 DVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPREPQVYV
 LPPSRDELTKNQVSLVCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFSVCSVMHEALHNRF
 TQKSLSLSPGGGGSGGGGSDIQMTQSPSTLSASVGDRTVITCQASQSISSHLNHWYQQKPGKAPKLLIYKASTLASGVPSRFSGSG
 SGTEFTLTITSSLQPDFFATYYCQQGYSWGNVDNFGGGTKVTVLGGGSGGGGSGGGGSGGGGSEVQLLESGLVQPGGSLSLSC
 AASGFSFSSGYDMCWVRQAPGKGLEWIIACIAAGSAGITYDANWAKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCARSAFSDYA
 MDLWGGGTLTVSS

>Sequence ID 80: SI-68P15 Chain B Nucleotide Sequence

GAAATGTATTGACACAGAGCCCCGCCTCCCTCAGTGCCTCACCTGGGGAAAGGGTAACATCACTTGCTCTGCATCAAGCAGCGT
 CTCATACATGATTGGTATCAACAAAAGCCTGGACAGGCCCCAAGCTCTGGATATACGATACAGCAAGCTGGCTTCCGGCGTAC
 CTAGCCGCTTCACTGGTTCGGGCTCAGGCAACGATCACACCTTACGATTTCAGTATGGAACCCGAAGATTTTGCAACTTATTAT
 TGTTCACAGGGGAGCGTGATACCATTTCACTTTCGGGCAGGGGACAAAAGTGACCGTCTTAGGCGGTGGCGGTAGTGGGGAGCGG
 TTCTGGCGGCGAGGGTCCGGCGGTGGAGGATCACAGGTCACATTGAAGGAATCTGGCCCCGGCCTTGTTCAGCCAGGACAGACCC
 TTAGCCTCACCTGTGCCTTCACTGGTCTTCTCTAGCACTAGCGGTATGGGGTCCGGTGGATTCGGCAGCCTCCCGCAAAGGT
 CTTGAGTGGTGGCTCACATTTGGTGGGACGACGACAAACGGTATAATCCTGCCTTGAAAAGTCCGGTGAACATTAGTAAGGATAC
 CTCAAAAAATCAAGTGACTTGCAATGAATAGCCTTGACGCCGAGGATACGGCTGTATATTATGCGCGCGGATGGAACCTCTGGT
 CTTACTACTTTGATTATTGGGGGACGGGACTCTCGTCACGGTCTCGAGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCAGAAATC
 GTCCTTACACAATCTCCTAGCACACTGAGTGTGAGCCCCGGCGAACGCGCGACTTTCTCTTGACGGGCAAGTCAATCCATAGGGAC
 TAATATACATTGGTATCAACAAAAGCCAGGTAACACCCAGGCTTTTATTAGTATGCAAGTGAGTCTATTTCCGGTATCCCTG
 ACCGCTTCTCTGGATCAGGCAAGTGGCACAGAGTTCACACTCACCATATCTAGTGTGCAATCAGAGGACTTCGCGGTGTATTACTGC
 CAACAGAATAATAACTGGCCGACTACCTTCGGACCCGGTACAAAGCTGACCGTTTTACGTACGGTGGCTGCACCATCTGTCTTCAT
 CTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTGTGTGCCTGCTGAATAACTTCTATCCCAGAGAGGCCAAAG
 TACAGTGAAGGTGGATAACGCCCTCCAATCGGGTAACCTCCAGGAGAGTGTACAGAGCAGGACAGCAAGGACAGCACCTACAGC
 CTCACGACGACCGTGACGCTGAGCAAGCAGACTACGAGAAACACAAAGTCTACGCTCGCAAGTCAACCTACCCATCAGGCTC
 GCGGCTCACAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGACAAAACCTCACACATGCCACCGTGCCAGCACCTGAAGCCGCGG
 GGGGACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACACCTCATGATCTCCCGACCCCTGAGGTCACTGCGTGGTGGTG
 GACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGA
 GGAGCAGTACAACAGCAGCTACCGTGTGGTCAAGCTCCTCAGCTCTGACACAGGACTGGCTGAATGGCAAGGAGTACAAGTGG
 CGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACC
 CTGCCCCAAGCCGGGATGAGCTGACCAAGAACAGGTGAGCCTGTGGTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGT
 GGAGTGGGAGAGCAATGGGCGCCGGAGAACACTACAAGACCAGCCTCCCGTGTGGACTCCGACGGCTCCTTCTTCTCTATA
 GCAAGCTCACCGTGACCAAGAGCAGGTGGCAGCAGGGGAACTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACCAACAGATT
 ACGCAGAAGAGCCTCTCCCTGTCTCCGGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCCGACATTGAGATGACACAGTCAACGTC
 TACGCTCTCAGCCTCAGTAGCGGATAGGGTGACTATCACTGCCAAGCCTCCCAATCTATAAGTTCACACCTCAACTGGTATCAAC
 AGAAACCCGGTAAAGCACCAGAGTGTCTCATCTACAAGGCATCAACTCTTGCCTCAGGTGTGCCTAGTGCCTTCTCCGGGAGCGGC
 TCCGCTACTGAGTTTACTTTGACGATATCTTCCCTCAACCCGACGACTTCGCCACATACTATTGTGACGAGGGTTATAGTTGGGG
 AAATGTTGACAATGTGTTTGGAGGGGGAACGAAAGTGACTGTGTTGGGAGGGGAGGAAGTGGCGCGCGGAAGCGGAGGTGGTG
 GCTCCGGCGGGGGTGAAGCGAAGTGCAATTGCTCGAAAGTGGTGGCGGACTTGTGCAACCTGGTGAAGCCTCTCACTCTCTTGC
 GCGCGAGTGGTTTTAGCTTCAGTAGCGGCTACGATATGTGCTGGTAAAGACAGGCTCCTGGTAAAGGCCTTGAAGTGGATTGCGTG
 TATCGCCCGGGGTCTGCTGGTATAACATACGATGCAAACTGGGCGAAAGGGCGCTTCAATCTCCAGGGACAACCTCAAAAAATA
 CATTGTACCTCCAGATGAATAGCCTGAGAGCCGAAGACACCGCAGTCTACTATTGCGCAAGGTGACGATTTAGCTTCGATTATGCA
 ATGGATCTTTGGGGCCAGGGGACGCTCGTCACCGTCTCATCTTGA

>Sequence ID 81: SI-68P18 Chain A Amino Acid Sequence

DVQMTQSPSTLSATVGRVTINQASESISSWLAWYQQKPGQPPKLLIYEASKLASGVPSRFSGSGSGTEFTLTITSSLQSDDFATY
 YCQGYFYFISRTYVNSFGGTRVEIKGGGSGGGGSGGGGSGGGGSGQLLESGLRLIKPGATLRLTCKTSGFTISTNMSWVRQPP
 GKGLEWIGVITGRDITYYASWAKGRFTISKTSINTVFLQMRSLRAEDTAVYYCARDGGSSAITSNNIWRGRTLTVTVSSGGGSGGG
 GSQVQLQSGPGLVPSSETLSITCTVSGFSLTNYGVHWIRQAPGKGLEWLVGIWGGNTDYNTPTSRFTITKDNSKNQVYFKLRS
 VRADDTAIYYCARALTYDYEFAYWGQGTTLTVVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVH
 TFPAYLQSSGLYSLSSVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMIS
 RTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAK
 GQPREPQVYTLPPSRDELTKNQVSLCAVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFSVCS
 VMHEALHNHYTQKSLSLSPGGGGSGGGGSDVVMQSPSSVSASVGDRTVITCQASQNIQRTYLSWYQQKPGKAPKLLIYAAANLAS
 GVPSRFSGSGSGTDFLTITISDLEPGDAATYYCQSTYLGTDYVGGAGGGTKLTVLGGGSGGGGSGGGGSGGGGSEVQLVESGGGL

VQPGSSLRLSCTASGFTISSYHMQWVRQAPGKLEYIGTISSSGGNVYYASSARGRFTISRFPSSKNTVDLQMNSLRAEDTAVYYCAR
DSGYSDBPMWGGTLTVSS

>Sequence ID 82: SI-68P18 Chain A Nucleotide Sequence

GATGTGCAGATGACCCAGAGCCCCGAGCACCCCTGAGCGCGACCGTGGGCCAGCGCGTGACCATTAACTGCCAGGCGAGCGAAAGCAT
TAGCAGCTGGCTGGGTGGGTATCAGCAGAAACCGGGCCAGCGCCCGAAACTGCTGATTTATGAAGCGAGCAAACCTGGCGAGCGCG
TGCCGAGCCGCTTTAGCGGCAGCGGCAGCGGCACCGAATTTACCCCTGACCATTAGCAGCCTGCAGAGCGATGATTTTGGCAGCTAT
TATTGCCAGGGCTATTTTTATTTTATAGCCGCACCTATGTGAACAGCTTTGGCGGCGGCACCCGCGTGAAATTAAGGCGGTGG
CGGTAGTGGGGGAGCGGTTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCACAGCAGCTGCTGGAAGCGGCGGCGCGCTGATTA
AACCGGGCGCGACCCCTGCGCTGACCTGCAAAACAGCGGCTTTACCATAGCACCACGCGATGAGCTGGGTGCGCCAGCGCCGCG
GGCAAAGGCGCTGGAATGGATTGGCGTGATTACCGGCCGCGATATTACCTATTATGCGAGCTGGGCGAAAGGCGGCTTTACCATAG
CAAAACAGCATTAACACCGTGTTCTGCGAGATGCGCAGCTGCGCGCGGAAGATACCGCGGTGATTTATGCGCGCGCGATGGCG
GCAGCAGCGCGATTACAGCAACAACATTTGGGGCGCGGCACCCCTGGTGACCGTGAGCAGCGGCGGTGGAGGGTCCGGCGGTGGT
GGATCACAAGTCACTGAGCAATCCGGTCCCGTCTCGTCAAACCGAGTGAGACGCTTAGTATAACGTGTACTGCTTCAGCTCTT
TAGCCTTACGAATATGGAGTTCACTGGATTTCGGCAGGCACCCGGCAAAGGTTTGAATGGCTGGGTGTTATTTGGTCAGGTGGAA
ATACAGACTATAACACCCCTTTACAAGTCGGTTACAATACGAAAGATAATCCAAAATCAAGTTTATTTCAAGTTGAGATCC
TCCGCGCGGACGACACTGCGATCTACTATTGTGCGAGGGCACTGACCTACTACGATTACGAATTTGCGTATTGGGGCAAGGGAC
TCTTTAACAGTCTCCAGTGCTAGCACCAGGGCCCTGAGCTCTTCCCTGGCACCCCTCTCCAAGAGCACCTCTGGGGCACAG
CGGCCCTGGGCTGCCTGGTCAAGGACTACTTCCCGAACCGGTGACGGTGTCTGGAACCTCAGGCGCCCTGACCAGCGCGGTGCAC
ACCTTCCCGCTGTCTACAGTCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCAACCCAGAC
CTACATCTGCAACGTGAATCACAAGCCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAATCTTGTGACAAAACCTCACACAT
GGCCAGCCCGAGAACCAAGGTGTATACCTGCCCCATCCCGGATGAGCTGACCAAGAACCAGGTGACCGTGTCTGCGCGCT
CGGACCCCTGAGGTACATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAA
GGTGATATAATGCCAAGACAAAGCCGCGGAGGAGCAGTACAACAGCAGCTACCGTGTGGTCAGCGTCTCCACCGTCTGCACACAGG
ACTGGCTGAATGGCAAGGAGTACAAGTGCAGCGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAAGCCAAA
GGGCGAGCCCGAGAACCAAGGTGTATACCTGCCCCATCCCGGATGAGCTGACCAAGAACCAGGTGACCGTGTCTGCGCGCT
CAAAGGCTTCTATCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCGAGCCGAGAACAACTACAAGACACGCGCTCCCGTGC
TGGACTCCGACGGCTCTCTTCTCTGAGCAAGCTCACCCTGGCAAGAGCAGGTGGCAGCAGGGGACGCTTCTCATGCTCC
GTGATGCATGAGGCTCTGCACAACCACTACACGAGAAGAGCCTCTCCCTGTCTCCGGTGGCGGCGCGGTTCAAGTGGTGGGG
ATCCGACGTTGTGATGACGAGTCTCCTAGTTCACTATCAGCGTCTGTTGGGGATCGAGTCACGATTACATGCCAGGCGAGCCAAA
ATATTAGGACGTATCTGTCTTGGTATCAACAAAGCCTGGTAAGGCTCCAAAACCTCTCATTACGCGCTGCCAACTTGGCTAGT
GGAGTACCTTCACGCTTTAGTGGGTGAGTTCTGGAACAGATTTACGTTGACGATCTCCGATTGGAACAGGGGACGCTGCCAC
GTATTATTGCCAGTCCACCTACCTCGGACTGACTACGTTGGTGGGGCGTTTGGCGGAGGAACAAAACCTCACTGTACTTGGTGGTG
GTGGTTACAGCGGGGGGGGTTCCGCGGAGGCGGTTCTGGGGTGGAGGTTCCGAGGTTCAAGTTGGTTGAAAGTGGGGGGGACTC
GTTACGCTGGAGGCTCTTTCGACTTTCTGTACCGCTTCTGGGTTCACTATAAGTTTCATATCATATGCAATGGGTAAAGACAGGC
GCCTGGTAAGGACTTGAATACATAGGAACAATAAGCTCTGGTGGTAACGCTCTATTACGCTCATCCGCGCGGGGGAGGTTTACAA
TTTCAGGCTTCTAGCAAAACACGGTAGATCTGCAATGAATCTCTTCGCGCTGAAGATACAGCAGTCTACTACTGCGCCAGG
GATTACAGGTATTCTGACCCCATGTGGGGCAGGCGACATTGGTTACCGTGTCTCTTGA

>Sequence ID 83: SI-68P18 Chain B Amino Acid Sequence

ENVLTQSPASLSASPERVTITCSASSSVSYMHWYQKPKQAPKLIWYDTSKLASGVPSPRFSGSGSGNDHTLTITSSMEPEDFATYY
CFQGSVYPFTFGQTKVTVLGGGSGGGSGGGSGGGSGVTLKESGPGLVQPGQTLSLTCAFSGFSLSSTGSMGVGWIRQPPGKG
LEWLAIHWDDDKRYNPALKSRLTISKDTSKNQVYLQMNSLDAEDTAVYYCARMELWSYFDYWGQGLTVTVSSGGGSGGGSGEI
VLTQSPSTLSVSPGERATFSCRASQSIGTNIHWYQKPKKPRLLIKYASESISGIPDRFSGSGSGTEFTLTISVQSEDFAVYYC
QQNNWPTTFPGTKLTVLRTVAAPSVFIFPPSDEQLKSGTASVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKSTYS
LSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGECGGDKHTHTCPPAPEAAGFPVFLFPPKPKDTLMISRTPEVTCVVV
DVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDLNGLKEYKCAVSNKALPAPIEKTIKAKGQPREPQVYT
LPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFCVSMHEALHNR
TQKSLSLSPGGGGGGGGSDIQMTQSPSTLSASVGDRTITCQASQSISSHLNHYQKPKAPKLLIYKASTLASGVPSRFSGSG
SGTEFTLTISLQPDFFATYYCQGYSWGNVDNVFGGKTVTVLGGGSGGGSGGGSGGGSGEVQLLESGLLVQPGGSLSLSC
AASGFSFSSGYDMCWVRQAPGKLEWIAAGSAGITYDANWAKGRFTISRDNKNTLYLQMNSLRAEDTAVYYCARSAFSDYA
MDLWGGGTLTVTVSS

>Sequence ID 84: SI-68P18 Chain B Nucleotide Sequence

GAAAATGATTGACACAGAGCCCCGCTCCCTCAGTGCCTCACCTGGGGAAAGGTAACATCACTTGCTCTGCATCAAGCAGCGT
CTCATACATGCATTGGTATCAACAAAAGCCTGGACAGGCCCCCAAGCTCTGGATATACGATACGAGCAAGCTGGCTTCCGGCGTAC
CTAGCCGCTTCAGTGGTTCGGCTCAGGCAACGATCACACCCCTTACGATTTCAGTATGGAACCCGAAGATTTTGAACCTATTAT
TGTTTCAGGGGAGCGGTATCCCACTTCTTTCGGGCAGGGGACAAAAGTGACCGTCTTAGGCGGTGGCGGTAGTGGGGGAGGCGG
TTCTGGCGGCGAGGCTCCGGCGGTGGAGGATCAGAGTCACATTGAAGGAATCTGGCCCCGGCTTGTTCAGCCAGGACAGACCC
TTAGCCTCACCTGTGCCTTCACTGGTTTTCTCTTAGCACTAGCGGTATGGGGTGGCTGGATTCCGCGAGCTCCCGCAAAGGT

GATGTGGTGATGACCCAGAGCCCGAGCAGCCTGAGCGGAGCGTGGGCGATCGCGTGACCATTAGCTGCCAGGCGAGCGAAAGCAT
TAGCAGCTGGCTGGCGTGGTATCAGCAGAAACCGGGCCAGGCGCCGAAACTGCTGATTTATGAAGCGAGCAAACGGCGAGCGCG
TGCCGAGCCGCTTTAGCGGCAGCGGCAGCGGCACCGAATTTACCTGACCATTAGCAGCCTGGAACCGGAAGATTTTGGCAGCTTA
TATTGCCAGGGCTATTTTATTTATTATGAGCGCACCTATTGTGAACAGCTTTGGCGGCGGCCAACAGTGGAAATTAAAGCGGCTGG
CGGTAGTGGGGGAGGCGGTTTGGCGCGGAGGGTTCGGCGGTGGAGGATCAGACAGCTGGTGGAAAGCGGCGCGGCGCTGGTGA
AACCGGGCGGCAGCCTGCGCCTGAGCTGCGCGGCAGCGGCTTTACCATTAGCACCAACCGCATGAGCTGGGTGCGCCAGGCGCCG
GGCAAAGGCTTGAATGGTGGGCGCTGATTACCGGCCGCGATATTACCTATTATGCGAGCTGGGCGAAAGGCGCTTTACATTAG
CAAAACGACGAAAAACCGTGATCTGCAGATGAACAGCCTGCGCGCGGAAGATACCGCGGTGATTATTGCGCGCGCATGGCG
CGAGCAGCGGATACCAGCAACAACATTTGGGGCCAGGGCACCTGGTGACCTGAGCAGCGCGGTGGAGGTCGGCGGCTGGTGGT
GGATCACAAGTACAGTTGCAGCAATCCGGTCCCGGTCTCGTCAAACCGAGTGAGACGCTTAGTATAACGTGTACTGTTTCAGGCTT
TAGCCTTACGAACTATGGAGTTCACCTGGATTGCGGAGCACC CGGCAAGGATTTGGAATGGCTGGGTGTATTGGTCAAGTGGAA
ATACAGACTATAACACCCCTTTACAAGTCGGTTACAATTACGAAAGTAATTCAAAAATCAAGTTTATTTCAAGTTGAGATCC
TCCGCGCGGAGCACACTGCGATCTACTATTGTGCGAGGGCACTGACCTACTACGATTACGAATTTGCGTATTGGGTGCGGCAAGGAC
TCTTGTAACAGTCTCCAGTGCTAGCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCTCCAAGAGCACCTCTGGGGGCACAG
CGGCCCTGGGCTGCCTGGTCAGGACCTACTTCCCCGAAACCGTGACCGGTGTCGTGGAATCAGGCGCCCTGACCAAGCGCGCTGCAC
ACCTTCCCGGCTGCTCTACAGTCTCAGGACTCTACTCCCTCAGCGAGCGTGGTGACCGTGCCTCCAGCAGCTTGGGCACCCAGCAG
CTACATCTGCAACGTGAATCACAAGCCGACGCAACCAAGGTGGACAAAGAGTGTGAGCCCAATCTTGTGACAAAACCTACACACA

>Sequence ID 87: SI-68P19 Chain B Amino Acid Sequence

>Sequence ID 88: SI-68P19 Chain B Nucleotide Sequence

65

AAATGTTGACAATGTGTTTGGAGGGGAACGAAAGTGAAGTGTGTTGGGAGGGGAGGAAGTGGCGGCGGCGGAAGCGGAGGTGGTG
 GCTCCGGCGGGGGTGGAAAGCGAAGTGCAATTGCTCGAAAGTGGTGGCGGACTTGTGCAACCTGGTGGAAGCCTCTCACTCTCTTGC
 GCGGCGAGTGGTTTTAGCTTCAGTAGCGGCTACGATATGTGCTGGGTAAGACAGGCTCCTGGTAAAGGCCTTGAGTGGATTGCGTG
 TATCGCCGCGGGGTCTGCTGGTATAACATACGATGCAAACTGGGCGAAAGGGCGCTTCAATCTCCAGGGGACAACTCAAAAATA
 CATTGTACCTCCAGATGAATAGCCTGAGAGCCGAAGACACCGCAGTCTACTATTGCGCAAGGTCAGCATTAGCTTCGATTATGCA
 ATGGATCTTTGGGGCCAGGGGACGCTCGTCACCGTCTCATCTTGA

>Sequence ID 89: SI-68P16 Chain A Amino Acid Sequence

DPVLTQSPSSLSASVGDRTVISCQSSQSVAKNNNLAWFQQKPGQAPKLLIYASTLAAGVPSRFSGSGSGTDFTLTISVQPEDFA
 TYYCSARDSGNIQSFSGGATKVEIKGGGSGGGGSGGGGSGGGGSGGGGSLVLESGLVKPGGSLRLSCAASGIDLSNAIGWVRQAPGK
 GLEWVGVI FSGNTYYASWAKGRFTISRKNTVYLMNSLRRAEDTAVYYCARGGYS SDIWGQGLVTVSSGGGSGGGGSGVQLQQ
 SGPGLVKPSLTSITCTVSGFSLTNYGVHWIRQAPGKLEWLGVIWSSGNTDYNTPFTSRFTITKDNSKNQVYFKLRSVRADDTAI
 YYCARALTYDYEFAYWGQGLTVTVSSASTKGPSVFPLAPSSKSTSGGTAALGLVKDYFPEPVTWNSGALTSGLVHTFPAVLQS
 SGLYSLSSVTVPSSSLGTQTYICNVNHKPSNTKVDKRVKPKSDKHTHTCPPEAPEAAGGSPVFLFPPKPKDTLMISRTPEVTCV
 VVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVSVLTVHLQDNLNGKEYKCAVSNKALPAPIEKTI SKAKGQPREPQV
 YTLPPSRDELTKNQVSLTSCAVKGFPYSDIAVEWESNGQPENNYKTPPVLDSDGSFFLVSKLTVDKSRWQQGNVFSVCSVMHEALHN
 HYTKQSLSLSPGGGGSGGGGSDVMTQSPSSVSASVGDRTVITCQASQNI RTYLSWYQQKPKGAPKLLIYAAANLASGVPSRFSG
 SSGSDFTLTISDLPEPDAAITYCYQSTYLGTDYVGGAFVGGKLTIVLGGGSGGGGSGGGGSGGGGSGGGGSEVQLVQPGGSLR
 LSCTASGFTISSYHMQWVRQAPGKLEYIGTISGGNVYASSARGRFTISRPSKNTVDLQMNLSRAEDTAVYYCARD SGYS DPM
 WQGGLVTVSS

>Sequence ID 90: SI-68P16 Chain A Nucleotide Sequence

GATCCAGTTCTGACACAAAGTCCATCCAGCCTGTCTGCCTCAGTCGGCGACAGAGTGACCATCAGTTGCCAGAGCTCACAGTCTGT
 GGCTAAGAACAACTTTGGCGTGGTTCCAACAGAACTGGACAGGCTCCGAAATTGCTGATCTATTCTGCTTCCACGCTTGTCTG
 CTGGTGTTCCTTCCCGCTTTTCAGGTAGTGGTAGCGGGACAGACTTCACTTTGACTATAAGCAGCGTGACGCTGAAGATTTTTCG
 ACCTACTATTGTTCTGCTAGAGACAGTGGAAATATTAGTCTTTGGGGGGGGAACGAAGGTCGAAATAAAGGGCGGCGGAGGGTCT
 TGGTGGGGGTGGCAGTGGTGGTGGAGGAAGTGGTGGCGGTGGTTCCCAACAGTTGGTTGAGTCTGGTGGCGGTCTCGTTAAGCCTG
 GAGGGTCCCTTCGGCTTAGTTGTGCGGCCCTCTGGGATCGACCTGTCTAGCAACGCTATAGGATGGGTACGGCAAGCTCCGGGCAAA
 GGCCTTAGTGGGTGGCGCTTATTTTGGGAGCGGTAATACGTACTACGCCAGCTGGGCAAAAGGTAGGTTCACTATCAGTCGATC
 AAAGAACACGGTATATCTTCAGATGAACAGTCTCCGGGCGGAGGACACCGCGGTTTATTATTGCGCAAGGGGGGATACTCCTCAG
 ACATATGGGGCCAAAGTACTTTGGTGACGGTCTCAGAGCGCGGTGGAGGGTCCGGCGGTGGTGGATCACAAGTACAGTTGCAGCAA
 TCCGGTCCCGGTCTCGTCAAACCGAGTGAGACGCTTAGTATAACGTGTACTGTTTCAGGCTTTAGCCTTACGAAGTATGGAGTTCA
 TCGGATTCGGCAGGACCGGCAAGGTTTGGAAATGGCTGGGTATTATTTGGTCAAGTGGAAATACAGACTATAACACCCCTTTA
 CAAGTCGGTTACAATTACGAAAGATAATTCCAAAATCAAGTTTATTTCAAGTTGAGATCCGTCGCGCGGACGACACTGCGATC
 TACTATTGTGCGAGGGCACTGACCTACTACGATTACGAATTTGCGTATTGGGGGCAAGGGAAGTCTGTAAACAGTCTCCAGTGCTAG
 CACCAAGGGCCCATCGGTCTTCCCTTGGCACCCCTCCTCAAGAGACACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGG
 ACTACTTCCCGCAAGGACCGGTGCTGTTGGAACACAGCGCCTGACCGCGGTGACACACCTTCCCGGTGCTCTACAGTCC
 TCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAA
 GCCCAGCAACCAAGGTGGACAAGAGATTGAGCCCAATCTTGTGACAAAATCACACATGCCACCGTGCCAGCAGCTGAAG
 CGCGGGGGGACCGTCACTCTTCTCTTCCCCCAAAACCAAGGACACCTCATGATCTCCCGGACCCCTGAGGTACATGCGTGTG
 GTGGTGGACGTGAGCCACGAGACCTGAGGTCAAGTTCACTGGTACGTGGACGGCGTGGAGGTGATAATGCCAAGACAAAGCC
 GCGGAGGAGCAGTACAACAGCAGTACCGTGTGGTCAAGCTCCTACCGTCTGCACAGGACTGGCTGAATGGCAAGGAGTACA
 AGTGCAGCGGTCTCCAAACAAGCCCTCCAGCCCCATCGAGAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTG
 TATACCTTGCCCCATCCCGGATGAGCTGACCAAGAACCAGGTGAGCTGTCTGCGCGCTCAAAGGCTTCTATCCAGCGACAT
 CGCCGTGGAGTGGGAGAGCAATGGGACGCCGAGAGAACATAACAGACACGCTCCCGTGTGACTCCGACGGCTCCTTCTTCC
 TCGTGAGCAAGCTCACCCTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAAC
 CACTACACGAGCAAGAGCCTCTCCCTGTCTCCGGGTGGCGGCGCGGTTCAAGTGGTGGGGGATCCGACGTTGTGATGACGCGATC
 TCCTAGTTCAGTATCAGCGTCTGTTGGGATCAGTACGATTACATGCCAGGCGAGCCAAAATATTAGGACGTATCTGTCTTGGT
 ATCAACAAAAGCCTGGTAAGGCTCCAAAACCTCCTCATTACGCCGTGCCAACTTGGCTAGTGGAGTACCTTACGCTTTAGTGGG
 TCAGGTTCTGGAACAGATTTACGTTGACGATCTCGATTGGGAACAGGGGACGCTGCCACGTATTATTGCCAGTCCACCTACCT
 CGGGACTGACTACGTTGGTGGGGCTTTGGCGGAGGAACAAAACCTCACTGTACTTGGTGGTGGTGGTTCAGGCGGGGGGGTCCG
 GCGGAGGCGGTTCTGGGGGTGGAGGTTCCGAGGTTCAAGTTGGTTGAAAGTGGGGGGGACTCGTTCAGCCTGGAGGCTCTTTGCGA
 CTTTCTGTACCGCTTCTGGGTTCACTATAAGTTCAATATCATATGCAATGGGTAAGACAGGCGCCTGGTAAGGGACTTGAATACAT
 AGGAACAATAAGCTCTGGTGGTAAGCTCTATTACGCTCATCCGCGCGGGGAGGTTTACAATTTCAGGCCTTCTAGCAAAAACA
 CGGTAGATCTGCAATGAAGTCTCTTCCGCTGAAGATACAGCAGTCTACTACTGCGCCAGGGATTGAGGTTATCTGACCCCATG
 TGGGGCAGGGCACATTGGTTACCGTGTCTCTTGA

>Sequence ID 91: SI-68P16 Chain B Amino Acid Sequence

ENVLTQSPASLSASPGERVITCSASSSVSYMHYQQKPGQAPKLIWYDTSKLASGVPSRFSGSGSGNDHTLTISMSPEDFATYY
 CFQGSVYPFTFGQGTQKVTVLGGGSGGGGSGGGGSGGGGSGVTLKESGPGLVQPGQTLSTLCAFSGFSLS TSGMGVGIWIRQPPGKG

LEWLAHIWDDDKRYNPALKSRLTISKDTSKNQVYLQMNSLDAEDTAVYYCARMELWSYFDYWQGTILVTVSSGGGGSGGGGSEI
 VLTQSPSTLSVSPGERATFSCRASQSIGTNIHWYQQKPKPRLIKYASEISGIPDRFSGSGSGTEFTLTISVQSEDFAVYYC
 QQNNNWPTTFPGTKLTVLRTVAAPSVFIFPPSDEQLKSGTASVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKSTYS
 LSSTLTLSKADYEEKHKVYACEVTHQGLSSPVTKSFNRGECGGDKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVTCVIV
 DVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDNLNGKEYKCAVSNKALPAPIEKTISKAKGQPREPQVY
 LPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLYSKLTVDKSRWQQGNVSCFVSVMHEALHNR
 TQKLSLSLSPGGGGSGGGGSDIQMTQSPSTLSASVGRVITITCQASQSISSHLNWIYQKPKAPKLLIYKASTLASGVPSRFSGSG
 SGTEFTLTISLQPDGFATYTCQQGYSWGNVDNFGGGTKVTVLGGGGSGGGSGGGSGGGSGGGSEVQLLESGLVQPGGSLSLSC
 AASGFSFSSGYDMCWVRQAPGKGLEWIAAAGSAGITYDANWAKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARSAFSDYA
 MDLWGQGTILVTVSS

>Sequence ID 92: SI-68P16 Chain B Nucleotide Sequence

GAAATGTATTGACACAGAGCCCCGCCTCCCTCAGTGCCTCACCTGGGGAAAGGGTAACATCACTTGCTCTGCATCAAGCAGCGT
 CTCATACATGCATTGGTATCAACAAAAGCCTGGACAGGCCCCAAGCTCTGGATATACGATACGAGCAAGCTGGCTTCCGGCGTAG
 CTAGCCGCTTCAGTGGTTCGGGCTCAGGCAACGATCACACCTTACGATTTCAGTATGGAACCCGAAGATTTTGAACCTATTAT
 TGTTCACAGGGAGCGTGTACCCATTCACTTTCGGGCAGGGGACAAAAGTGACCGTCTAGGCGGTGGCGGTAGTGGGGAGGCGG
 TTCTGGCGGCGAGGGTCCGGCGGTGGAGGATCACAGGTCACATTGAAGGAATCTGGCCCCGGCCTTGTTCAGCCAGGACAGACCC
 TTAGCCTCACCTGTGCCTTCAGTGGTTCCTCTTAGCACTAGCGGTATGGGGTTCGGCTGGATTTCGGCAGCCTCCCGCAAGGT
 CTTGAGTGGTTCAGTTCACATTGGTGGGACGACGACAAACGGTATAATCCTGCCTTGAAAAGTCGGCTGACCATTAGTAAGGATAC
 CTCAAAAATCAAGTGTACTTGCAATGAATAGCCTTGACGCCGAGGATACGGCTGTATATTATGCGCGCGGATGGAACCTCTGGT
 CTTACTACTTTGATTATTGGGGGACGGGACTCTCGTCACGGTCTCGAGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCAGAAATC
 GTCCTTACACAATCTCTAGCACACTGAGTGTGAGCCCCGGCGAACGCCGCACTTTCTCTTGACGGGCAAGTCAATCCATAGGGAC
 TAATATACATTGGTATCAACAAAAGCCAGGTAACCACCCAGGCTTTTGATTAAAGTATGCAAGTGAGTCTATTTCCGGTATCCCTG
 ACCGCTTCTCTGGATCAGGCGAGTGGCACAGAGTTCACACTCACCATATCTAGTGTGCAATCAGAGGACTTCGCCGTGTATTACTGC
 CAACAGAATAAATACTGGCCGACTACCTTCGGACCCGGTACAAAGCTGACCGTTTTACGTACGGTGGCTGCACCATCTGTCTTCAT
 CTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAACCTGCCCTCTGTGTGTGCTGCTGAATAACTTCTATCCAGAGAGGCCAAAG
 TACAGTGAAGGTGGATAACGCCCTCCAATCGGGTAACCTCCAGGAGAGTGTACAGAGCAGGACAGCAAGGACAGCACCTACAGC
 CTCAGCAGCACCTGACGCTGAGCAAGCAGACTACGAGAAACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCTGAGCTC
 GCGGTCTCAAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGACAAAACCTCACACATGCCACCGTGCCAGCACCTGAAGCCGCGG
 GGGGACCGTCAGTCTCTCTCTCCCCCAAAACCAAGGACACCTCATGATCTCCCGACCCCTGAGGTACATGCGGTGGTGGT
 GACGTGAGCCACGAAGACCTGAGGTCAAGTTCACCTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGA
 GGAGCAGTACAACAGCACGTACCGTGTGGTCAAGCTCCTCACCGTCTGCACAGGACTGGCTGAATGGCAAGGAGTACAAGTGGC
 CGGTCTCAACAAAGCCCTCCAGCCCCATCGAGAAACCATCTCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACC
 CTGCCCCCAAGCCGGGATGAGCTGACCAAGAACCAGGTCAAGCTGCTGGTGGTGGTCAAGGCTTCTATCCCAAGGACATCGCGGT
 GGAGTGGGAGAGCAATGGGAGCCGGAGAACAACTACAAGACCACGCTCCCGTCTGGACTCCGACGGCTCCTTCTCTCTCTATA
 GCAAGCTCACCGTGGCAAGAGCAGGTGGCAGCAGGGGACGCTCTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACAGATTC
 ACGCAGAAGAGCCTCTCCCTGTCTCCGGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCCGACATTAGATGACACAGTCAAGCTC
 TACGCTCTCAGCCTCAGTGGCGATAGGGTGACTATCACTGCCAAGCCTCCCAATCTATAAGTTACACCTCAAGTGGTATCAAC
 AGAACCCTGGTAAAGCAGGAGCTGCTCATCTACAAGGATCAACTCTTGCTCAGGTGTGCCTAGTGCCTTCTCCGGGAGCGGC
 TCCGCTACTGAGTTTACTTTGACGATATCTCTCCCTCAACCCGACGACTTCGCCACATACTATTGTGACGAGGTTATAGTTGGGG
 AAATGTTGACAATGTGTTTGGAGGGGGAACGAAAGTGACTGTGTTGGGAGGGGAGGAAGTGGCGGCGGGAAGCGGAGGTGGTG
 GCTCCGGCGGGGGTGAAGCGAAGTGCAATTGCTCGAAAGTGGTGGCGGACTTGTGCAACCTGGTGAAGCCTCTCACTCTCTTGC
 GCGGCGAGTGGTTTTAGCTTCAGTAGCGGCTACGATATGTGCTGGGTAAGACAGGCTCCTGGTAAAGGCCTTGAGTGGATTGCGTG
 TATCGCCGCGGGTCTGCTGGTATAACATACGATGCAAACTGGGCGAAAGGCGCTTCAATCTCCAGGGACAACCTCAAAAAATA
 CATTGTACCTCCAGATGAATAGCTGAGAGCCGAAGACACCGCAGCTTACTATTGCGCAAGGTGAGCATTTAGCTTCGATTATGCA
 ATGGATCTTTGGGGCCAGGGGACGCTCGTCAACCTCTCATCTTGA

>Sequence ID 93: SI-75P5 Chain A Amino Acid Sequence

EVQLQESGGGLVQAGDSLSSLCLVSGRSFNSYTMGWFRQAPGKEREFVAAILWSGPTTYADSVKGRFTISRDNAKNTVYLQMNSL
 KPEDTAVYYCAAALGVLVLPAGNVSYWQGTQVTVSSGGGGSGGGGSEVQLVSGGGLVQPGGSLRLSCAASGFTISTNAMS
 WVRQAPGKGLEWIGVITGRDITYYASWAKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARDGGSSAITSNNI
 WGGQTLTVTVSSASTKGPSVFPLAPSSKSTSGGTAAALGLCLVDYFPEPVTVSWNSGALTSVHTFPAVLQSSGLYSLSVVTV
 PPSLSLTQTYICNVNHKPSNTKVDKRVPEKSCDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVTCVIVDVSHED
 PEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDNLNGKEYKCAVSNKALPAPIEKTISKAKGQPREPQVY
 TLPSPSRDELTKNQVSLCAVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLVSKLTVDKSRWQQGNVSCFVS
 VMHEALHNHYTQKLSLSLSPGGGGSGGGGSDVVMQSPSPSVASVGRVITITCQASQNIIRTYLSWYQQKPKAPKLLIYAAANLASGVPSRFS
 GSGSGTDFTLTISDLEPGDAATYYCQSTYLGTDYVGGAFGGGKTLTVLGGGGSGGGSGGGSGGGSEVQLVESGGGLVQPGGSLRLS
 CTASGFTISSYHMQWVRQAPGKGLYEIGTISSGNVVYASSARGRFTISRPSKNTVLDQMNSLRAEDTAVYYCARDGSGSDP
 MWGQGTILVTVSS

>Sequence ID 94: SI-75P5 Chain A Nucleotide Sequence

>Sequence ID 95: SI-75P5 Chain B Amino Acid Sequence

>Sequence ID 96: SI-75P5 Chain B Nucleotide Sequence

68

CCCTGCCCCAAGCCGGGATGAGCTGACCAAGAACCAGGTCAGCCTGTGGTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCC
GTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACACTACAAGACCACGCCCTCCCGTGTGGACTCCGACGGCTCCTTCTCCTCTA
TAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACAGAT
TCACGCAGAAGAGCCTCTCCCTGTCTCCGGGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCCGACATTAGATGACACAGTCACCG
TCTACGCTCTCAGCCTCAGTAGGCATAGGGTGACTATCACCTGCCAAGCCTCCCAATCTATAAGTTCACACCTCAACTGGTATCA
ACAGAAACCCGGTAAAGCACCGAAGCTGCTCATCTACAAGGCATCAACTCTTGCCTCAGGTGTGCCTAGTCGCTTCTCCGGGAGCG
GCTCCGGTACTGAGTTTACTTTGACGATATCTTCCCTCCAACCCGACGACTTCGCCACATACTATTGTGACAGGGTTATAGTTGG
GGAATGTTGACAAATGTGTTTGGAGGGGGAACGAAAGTGACTGTGTTGGGAGGGGGAGGAAGTGGCGGGCGGGAAGCGGAGGTGG
TGGCTCCGGCGGGGTGGAAAGCGAAGTGCAATTGCTCGAAAGTGGTGGCGGACTTGTGCAACCTGGTGAAGCCTCTCACTCTCTT
GCGCGGCGAGTGGTTTTAGCTTCACTAGCGGCTACGATATGTGCTGGGTAAAGACAGGCTCCTGGTAAAGGCCTTGAGTGGATTGCG
TGATATCGCCCGGGTCTGCTGGTATAACATACGATGCAAACCTGGGCGAAAGGGCGCTTCACAATCTCCAGGGACAACCTCAAAAA
TACATTGTACCTCCAGATGAATAGCTGAGAGCCGAAGACACCGCAGTCTACTATTGCGCAAGGTCAGCATTTAGCTTCGATTATG
CAATGGATCTTTGGGGCCAGGGGACGCTCGTCACCGTCTCATCTTGA

>Sequence ID 97: SI-75P8 Chain A Amino Acid Sequence

EVQLQESGGGLVQAGDSLSSLVSGRSFNSYTMGWFRQAPGKEREFVAAILWSGPTTYADSVKGRFTISRDNKNTVYLQMNLSL
KPEDTAVYYCAAALGVLVLPAGNVYSYWGQGTQVTVSSGGGSGGGGSQVQLQESGGRLVQPGPEPLSLTCKTSIDLSNAIGWVR
QAPGKGLEWIGVIFGSGNTYYASWAKGRFTISRSTSTVYLMKNSLRSEDTAIYYCARGYSSDIWGQGLVTVSSASTKGPSVFPL
APSSKSTSGGTAALGLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVFSSSLGTQTYICNVNHKPSNTKVKDKR
VEPKSCDKHTCTCPPAPEAAGGPAVLEFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTY
RVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTI SKAKGQPREPQVYTLPPSRDELTKNQVSLCAVKGFYPSDIAVEWESNGQ
PENNYKTTPEVLDSGFFLVSKLTVDKSRWQQGNVFCSSVMHEALHNHYTQKSLSLSPGGGGSGGGGSQVQLQSSGPGLVKPSSE
TSLITCTVSGFSLTNYGVHWIRQAPGKGLEWLGVIWSSGNTDYNTPFTSRFTITKDNSKNQVYFKLRSVRADDTAIYYCARALYY
DYEFAYWGQGLTVTVSSGGGSGGGSGGGSGGGSEIVLTQSPSTLSVSPGERATFSCRASQSIGTNIHWYQQKPKGKPRLLIK
YASESISGIPDRFSGSGSTEFTLTISVQSEDFAVYYCQNNNNWPTTFGPGTKLTVL

>Sequence ID 98: SI-75P8 Chain A Nucleotide Sequence

GAGGTGCAGCTGCAGGAGTCTGGCGGCGGCTGGTGCAGGCTGGGGACAGCCTGAGCCTGTCTGCCTGGTGTCTGGCGCTCCTT
CAACTCCTACACCATGGGCTGGTTCCGCCAGGCCCTGGGAAGGAGCGGGAGTTTGTGGCTGCCATCCTGTGGAGTGGCCCCACCA
CCTACTATGCTGACTCTGTGAAGGGCCGCTTACCATCTCCAGAGACAATGCCAAGAACTGTGTACCTGCAGATGAACAGCCTG
AAGCCAGAGGACACAGCTGTGTACTACTGTGCTGCTGCCCTGGGAGTGTGCTGCTGGCCCCCTGGCAATGTGTACAGCTACTGGGG
CCAGGGCACCCAGGTGACTGTCTCGAGCGGCGGTGGAGGGTCCGGCGGTGGTGGATCACAAGTGCAGTTGCAAGAAAGTGGTGGTA
CAGTGGTTCAGCCTGGTGAACCTTGTCACTGACGTGTAAACAAAGCGGCATTGATCTGTCTCTAACGCCATCGGATGGGTCCGA
CAGGCCCCAGGAAAAGGTCTGGAGTGGATCGGAGTTATCTTGGGAGCGGCAATACATACTACGCAAGCTGGGCAAAAGGGCGATT
TACGATATCAGCGAGCACCTCTACAGTTTATTTGAAAATGAACCTCCCTCCGGTCCGAGGATACCGCATATATTACTGTGCCAGAG
GGGGGTACTCCTCTGATATCTGGGGGACGGGTACACTGGTTACAGTTTTCATCCGCTAGCACCAAGGCCCTCTGTGTTCCCTCTG
GCCCTCCTCCAAGAGCACCTCTGGAGGCACTGCTGCCCTGGGCTGCCGTGGTGAAGGACTACTTCCAGAGCCTGTGACTGTGTC
CTGGAACCTCTGGAGCCCTGACCTCTGGAGTGCACACCTTCCCTGCTGTGCTGCAGAGCTCTGGCCTCTACAGCCTGTCTCTGTGG
TCACTGTGCCCTCCTCCAGCCTGGGCACCCAGACCTACATCTGCAATGTGAACCAAGCCCTCCAACCAAGGTGGACAAGAGA
GTGGAGCCCAAGTCTGTGACAAGACCCACACCTGCCCTCCCTGCCAGCCCCAGAGGCTGCTGGAGGCCCTCTGTGTTCCCTCTT
CCCTCCCAAGCCCAAGGACACCTGATGATCTCCAGGACCCCAAGAGTACCTGTGTGGTGGTGGATGTGTCCCATGAAGACCCAG
AAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGGTGCACAATGCCAAGACCAAGCCAGAGAAGAGCAGTACAACCTCCACCTAC
CGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGAATGGGAAGGAGTACAAGTGTGCTGTGTCACCAAGGCCCTGCC
TGCCCCATTGAGAAGACCATCTCAAGGCCAAGGGCCAGGCCAGAGAGCCCAAGGTCTACACCTGCCTCCCTCCAGAGATGAGC
TGACCAAGAACCAGGTGTCCCTGTCTGTGCTGTGAAAGGCTTCTACCCAGTGACATTGCTGTGGAGTGGGAGAGCAATGGCCAG
CCAGAGAACAACACTACAAGACCACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTTCTGCTCTCAAGCTGACTGTGGACAAGAG
CCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTATGCATGAGGCCCTGCACAACCACTACACCCAGAAGAGCCTGAGCCTGA
GCCCTGGAGGAGGAGGAGGCTCTGGAGGAGGAGGATCCCAAGTTCAAGTGCAGCAGTCTGCCCTGGCCTGGTCAAGCCTTCTGAG
ACACTGTCCATCACCTGTACCGTGTCCGGCTTCTCCCTGACCAATTACGGCGTGCAGTGGATCAGACAGGCCCTGGCAAAAGGACT
GGAATGGCTGGGAGTGATTGGAGCGGGCGCAACACCGACTACACACCCCTTTACCGAGCCGGTTACCATCACCAAGGACAACCT
CCAAGAACCAGGTGTACTTCAAGCTGCGGAGCGTGCAGGCTGATGACACCGCCATCTACTACTGTGCTCGGGCCCTGACCTACTAC
CCTACGAGTTTGTACTGGGGCCAGGGCACCTGGTCAAGTTTCTTGTGGTGGTGGTGGTTCAGGCGGGGGGGTTCCGGCGCT
AGGCGGTTCTGGGGGTGGAGGTTCCGAGATCGTGTGACCCAGTCTCCTTCCACACTGTCTGTGCTCTCCGGCGAGAGAGCCACCT
TCAGCTGTAGAGCCTCTCAGTCCATCGGCACCAACATCCACTGGTATCAGCAGAAGCCCGGCAAGCCTCCTCGGCTGTGATTAG
TACGCTCCGAGTCCATCAGCGGCATCCCTGACAGATTCTCCGGCTCTGGCTCTGGCACCGAGTTTACCTGACCATCTCCTCCGT
GCAGTCCGAGGATTTCGCCGTGTACTACTGCCAGCAGAACAACTGGCCACACCTTTGACCCGGCACCAGCTGACCGTGC
TGTGA

>Sequence ID 99: SI-75P8 Chain B Amino Acid Sequence

QVQLVQSGGGLVQAGGSLSLSCAFSGRTFSMYTMGWFRQAPGKEREFVAANRGRGLSPDIADSVNGRFTISRDNKNTLYLQMDSL
KPEDTAVYYCAADLYGSSWFPQRS SAEYDYWGQGT VTVSSSGGGSGGGGSDPQLTQSPSSLSATVQGRTINCQSSQSVAKNNL
AWFQKPGKPKLLIYASASTLAAGVPSRFSGSGSGTQFTLTITRVQSEDFATYYCSARDSGNIQSFGGGTRVEIKRTVAAPSVFIF
PPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSYSLSTLTLSKADYEKHKVYACEVTHQGLSSP
VTKSFNRGECGGDKHTHTCPPCPAPEAAGGPSVFLFPPPKPDTLMI SRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPRE
QYNSTYRVVSVLT VHLQDWLNGKEYKCAVSNKALPAPI EKTISKAKGQPREPQVYTLPPSRDELTKNQVSLWCLVKGFYPSDIAVE
WESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFS CVMHEALHNRTQKSLSLSPGGGGSGGGGSQVQLQESGGG
LVKPGGSLSLSCAASGFTFSYWMSWVRQAPGKGLEWVANINRDGSASYVDSVKGRFTISRDDAKNSLYLQMNLSRAEDTAVYYC
ARDRGVGYFDLWGRGLTVTVSSSGGGSGGGSGGGGSQALTQPASVSGSPGQSITISCTGTSSDVGGYNFVSWYQHPGKAPKLM
IYDVS DRPSGVSDRFSGSKSGNTASLIISGLQADDEADYYCSSYSSSTHVI FGGGTKVTVL

>Sequence ID 100: SI-75P8 Chain B Nucleotide Sequence

CAGGTGCAGCTGGTGCAGTCTGGCGGAGGCCTGGTGCAGGCTGGGGGCAGCCTGAGCCTGAGCTGTGCCTTCTCTGGCCGACCTT
CTCCATGTACACCATGGGCTGGTTCCGCCAGGCCCCAGGGAAGGAGAGAGAGTTTGTGGCTGCCAACAGAGGCAGAGGCCTGAGCC
CAGACATTGCTGACTCTGTGAATGGCCGCTTACCATTCTCCAGAGACAATGCCAAGAACACCCCTGTACCTGCAGATGGACAGCCTG
AAGCCAGAGGACACAGCTGTGTACTACTGTGCTGCTGACCTGCAGTATGGCAGCAGCTGGCCTCAGAGGAGCTGTGCTGAGTATGA
CTACTGGGGCCAGGGCACCCTGTGACTGTCTCGAGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCAGATCCTCAATTGACCCAGT
CCCCTAGTAGCCTTTCTGCAACCCGTGGGCCAGAGGTAACAATCAATTGCCAGTCAAGCCAGTCCGTAGCGAAGAATAATAATTG
GCATGGTTCACAAAAACCGGGTAAACCTCCTAACTCCTTATCTACTCAGCTTCAACCCCTGCCGCGGGTGTGCCAGCCGGT
CTCAGGCTCAGGTTCCGGGACTCAATTTACACTTACCATCACTCGCTCCAAAGTGAGGATTTTGCAACCTACTATTGTCTGCAC
GGGATTCCGGGAACATACAGTCTTTGGGGTGGAACTCGGGTGGAGATAAAACGTACGGTGGCTGCCCCCTGTGTGTCATCTTC
CCACCTCTGTGTTCTCTCTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACCCAGAAAGTCACTGTGTGGTGGTGGATG
GTGGAAGGTGGACAATGCCCTGCAGAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAGGACAGCAAGGACAGCACCTACAGCCTGT
CCTCCACCCCTGACCTGTCCAAGGCTGACTATGAGAAGCACAAGGTGTATGCCTGTGAGGTGACCCACAGGGCCTGAGCAGCCCT
GTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTCCCTGCCAGCCCCAGAAGCTGCTGGAGG
CCCCCTCTGTGTTCTCTCTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACCCAGAAAGTCACTGTGTGGTGGTGGATG
TGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGAAGTGCACAATGCCAAGACCAAGCCAGAGAAGAG
CAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGAATGGGAAGGAGTACAAGTGTGCTGT
GTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAGCCCCAGGTCTACACCCCTGC
CTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGCCTGGTGAAGAGCTTCTACCCAGTACATGCTGTGGAG
TGGGAGAGCAATGGCCAGCCAGAGAACAATAACAAGACCACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTTCTGTACAGCAA
GCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTGCTGCTGTGATGATGAGGCCCTGCACAACCGCTTACCC
AGAAGAGCCTGAGCCTGAGCCCTGGAGGAGGAGGAGGCTCTGGAGGAGGAGGATCCAGGTGCAGCTGCAGGAGTCCGGGGGAGGC
CTGGTCAAGCCTGGAGGGTCCCTGAGCCTCTCCTGTGCAGCCTCTGGATTACCTTTAGTAGTTATTGGATGAGCTGGTCCGCCA
GGCTCCAGGGAAGGGGCTGGAGTGGGTGGCCAACATAAACCCGCGATGGAAGTGCAGTTACTATGTGGACTCTGTGAAGGGCCGAT
TCACCATCTCCAGAGACGACGCCAAGAATCACTGTATCTGCAATGAACAGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGT
CGGAGAGATCGTGGGTGGGCTACTTCGATCTCTGGGCGGTGGCACCCTGGTACCCTGTCTAGCGGTGGAGGCGGTTACAGCCG
AGGTGGTTCCGGCGGTGGCGGCTCCAGTCTGCCCTGACTCAGCCTGCCCTCCGTGTCTGGGTCTCCTGGGACAGTGCATCACCATT
CCTGCACTGGAACAGCAGTACGTTGGTGGTTATAACTTTGTCTCCTGGTACCAACAACACCCAGGCAAGGCCCAAACTCATG
ATCTATGATGTAGTGATCGGCCCTCAGGGGTGTCTGATCGCTTCTCCGGCTCCAAGTCTGGCAACACGGCCTCCTGATCATCTC
TGGCCTCCAGGCTGACGACGAGGCTGATTATTACTGCAGCTCATATGGGAGCAGCAGCACTCATGTGATTTTCGGCGGAGGGACCA
AGGTGACCGTCTCTATAA

>Sequence ID 101: SI-75X4 Chain A Amino Acid Sequence

EVQLQESGGGLVQAGDSLSSLCLVSGRSFNSYTMGWFRQAPGKEREFVAAILWSGPTTYADSVKGRFTISRDNKNTVYLMNSL
KPEDTAVYYCAALGVLVLAAPGNVYSYWGQGTQVTVSSSGGGSGGGGSEVQLVSGGGLVQPGGSLRLSCAASGFTISTNAMSWVR
QAPGKGLEWIGVITGRDITYASWAKGRFTISRDNKNTLYLQMSLSRSED TAVYYCARDGGSSAITSNNIWGGQLTVTVSSASTK
GPSVFPLAPSSKSTSGGTAAALGLVKDYFPEPVTVSWNSGALTSVHTFPAVLQSSGLYSLSSVTVPSSSLGQTQYICNVNHKPS
NTKVDKRVEPKSCDKHTHTCPPCPAPEAAGGPSVFLFPPPKPDTLMI SRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPRE
EQYNSTYRVVSVLT VHLQDWLNGKEYKCAVSNKALPAPI EKTISKAKGQPREPQVYTLPPSRDELTKNQVSLSCAVKGFYPSDIAV
EWESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFS CVMHEALHNHYTQKSLSLSPG

>Sequence ID 102: SI-75X4 Chain A Nucleotide Sequence

GAGGTGCAGCTGCAGGAGTCTGGCGGCGGCCTGGTGCAGGCTGGGGACAGCCTGAGCCTGTCTGCCTGGTGTCTGGCCGCTCCTT
CAACTCCTACACCATGGGCTGGTTCCGCCAGGCCCTGGGAAGGAGCGGGAGTTTGTGGCTGCCATCCTGTGGAGTGGCCCCACCA
CCTACTATGCTGACTCTGTGAAGGCGCTTACCATTCTCCAGAGACAATGCCAAGAACACTGTGTACCTGCAGATGAACAGCCTG

AAGCCAGAGGACACAGCTGTGTACTACTGTGCTGCTGCCCTGGGAGTGCTGGTGTGCTGGCCCTGGCAATGTGTACAGCTACTGGGG
CCAGGGCACCAGGTGACTGTCTCGAGCGGAGGAGGAGGCTCTGGAGGAGGAGGAGTGGAGGTGCAGCTGGTGGAGAGTGGAGGAG
GCCTGGTGCAGCCTGGAGGACGCTGCGGCTGTCTGTGCTGCCCTTGCTTACCATCTCCACCAATGCCATGTCTGGGTGCGC
CAGGCCCCCTGGCAAGGGCCTGGAGTGGATTGGAGTCATCACTGGCAGAGACATCACCTACTATGCCCTCCTGGGCCAAAGGCCGCTT
CACCATCTCCAGAGACAACAGCAAGAACACCCTGTACCTGCAGATGAGCAGCCTGCGCAGTGAGGACACAGCTGTGTACTACTGTG
CCCCAGATGGAGGACAGTGGCATCACCTCCAAACAACATCTGGGGCCAGGGCACCCCTGGTCACTGTGTCTCTGTCTAGCACCAAA
GGCCCCCTCTGTGTTCCCTCTGCCCCCTCCTCCAAGAGCACCTCTGGAGGCACTGCTGCCCTGGGCTGGTGAAGGACTACTT
CCAGAGCCTGTGACTGTGTCTGGAACCTCTGGAGCCCTGACCTCTGGAGTGCACACCTTCCCTGCTGTGCTGCAGAGCTCTGGCC
TCTACAGCCTGTCTCTGTGGTCACTGTGCCCTCCTCCAGCCTGGGCACCCAGACCTACATCTGCAATGTGAACCACAAGCCCTCC
AACACCAAGGTGGACAAGAGAGTGGAGCCCAAGTCTGTGACAAGACCCACACCTGCCCTCCCTGCCAGCCCCAGAGGCTGTGTTG
AGGCCCTCTGTGTTCCCTCTCCCTCCCAAGCCCAAGGACACCTGATGATCTCCAGGACCCCAAGTCACTGTGTGGTGGTGG
ATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGGTGCACAATGCCAAGACCAAGCCAGAGAA
GAGCAGTACAACTCCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGTGAATGGGAAGGAGTACAAAGTGTGC
TGTGTCCAACAAGGCCCTGCCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAGCCCCAGGTCTACACCC
TGCCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTCTGTGCTGTGAAAGGCTTACCCCAAGTACATGCTGTG
GAGTGGGAGAGCAATGGCCAGCCAGAGAACAACATAAGACCACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTCTGCTGTCTC
CAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTCTCTGCTGTGTCATGAGGCCCTGCACAACCACTACA
CCCAGAAGAGCCTGAGCCTGAGCCCTGGATGA

>Sequence ID 103: SI-75X4 Chain B Amino Acid Sequence

QVQLVQSGGGLVQAGGSLSLSCAFSGRTFSMYTMGWFRQAPGKEREFVAANRGRGLSPDIADSVNGRFTISRDNKNTLYLQMDSL
KPEDTAVYYCAADLQYGSWPPQRS AEYDYWGQGTFTVTVSSGGGSGGGGSDVMTQSPSTLSASVGDRTINQASEISSWLAW
YQQKPKGKAPKLLIYEASKLASGVP SRFGSGSGTEFTLTISLQPD FATYYCQGYFYFISRTYVNSFGGGTKVEIKRTVAAPSVF
IFPPSDEQLKSGTASVVLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSYSTLSSTLTLSKADYEKHKVYACEVTHQGLS
SPVTKSFNRGECGGDKHTHTCPPEAPEAAGGSPVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPR
EEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPI EKTISKAKGQPREPQVYTLPPSRDELTKNQVSLVCLVKGFYPSDIA
VEWESNGQPENNYKTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFCSCVMHEALHNRFTQKSLSLSPG

>Sequence ID 104: SI-75X4 Chain B Nucleotide Sequence

CAGGTGCAGCTGGTGCAGTCTGGCGGAGGCCCTGGTGCAGGCTGGGGGCAGCCTGAGCCTGAGCTGTGCCTTCTCTGGCCGCACCTT
CTCCATGTACACCATGGGCTGGTTCGCCAGGCCCCAGGGAAGGAGAGAGATTGTGGCTGCCAACAGAGGCAGAGGCTGAGCC
CAGACATTGCTGACTCTGTGAATGGCCGCTTACCATCTCCAGAGACAATGCCAAGAACACCCTGTACCTGCAGATGGACAGCCTG
AAGCCAGAGGACACAGCTGTGTACTACTGTGCTGCTGACCTGCAGTATGGCAGCAGCTGGCCTCAGAGGAGCTGTCTGAGTATGA
CTACTGGGGCCAGGGCACCACTGTGACTGTCTCGAGCGGAGGAGGAGGCTCTGGAGGAGGAGGCAGTGTATGGTGATGACCCAGA
GCCCCCTCCACCCTGTCTGCCCTCTGTGGGAGACAGAGTGACCATCAACTGCCAGGCCAGTGAGAGCATCTCCTCCTGGCTGGCCCTGG
TACCAGCAGAAGCCAGGCAAGGCCCCCAAGCTGCTCATCTATGAAGCCTCCAAGCTGGCCTCTGGAGTGCCTCCCCGCTTCTCTGG
CTCTGGCTCTGGCAGAGATTACCCCTGACCATCTCCAGCCTGCAGCCAGATGACTTTGCCACCTACTACTGCCAGGGCTACTTCT
ACTTTCATCTCCAGGACCTATGTGAACAGCTTTGGAGGAGGCACCAAGGTGGAGATCAAGCGTACGGTGGCTGCCCCCTCTGTGTTT
ATCTTCCCACCCAGTGATGAGCAGCTGAAGAGTGGCACAGCCTCTGTGGTGTGCCTGCTCAACAACCTTCTACCCAGAGAAGCCAA
GGTGCAAGTGAAGGTGGACAATGCCCTGCAGAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAGGACAGCAAGGACAGCACCTACA
GCCTGTCTCCACCCTGACCTGTCCAAGGCTGACTATGAGAAGCACAAAGGTGTATGCCTGTGAGGTGACCCACAGGGCCTGAGC
AGCCCTGTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTCCTTGGCCAGCCCCAGAAGCTGC
TGGAGGCCCCCTCTGTGTTCTCTTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACCCCAAGTCACTGTGTGGTGG
TGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGTGCACAATGCCAAGACCAAGCCAGA
GAAGAGCAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGAATGGGAAGGAGTACAAGTG
TGCTGTGTCCAACAAGGCCCTGCCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAGCCCCAGGTCTACA
CCCTGCCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGCCTGGTGAAGGCTTCTACCCAGTGACATTGCT
GTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACTACAAGACCACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTCTGCTGA
CAGCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTGTGTCATGAGGCCCTGCACAACCGCT
TCACCCAGAAGAGCCTGAGCCTGAGCCCTGGATGA

>Sequence ID 105: SI-75X17 Chain A Amino Acid Sequence

EVQLQESGGGLVQAGDSLSSLCLVSGRSFNSYTMGWFRQAPGKEREFVAAILWSGPTTYADSVKGRFTISRDNKNTVYLQMNLSL
KPEDTAVYYCAALGVLVLPAGNVYSYWGQGTQVTVSSGGGSGGGGSGVQLQESGGRLVQPGPEPLSLTCKTSGLDLSNAIGWVR
QAPGKLEWIGVIFGSGNTYYASWAKGRFTISRSTVLYLKMNSLRSEDTAIYYCARGGYSSDIWGQGLTVTVSSASTKGPSVFPL
APSSKSTSGGTAALGLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVFPSSSLGTQTYICNVNHKPSNTKVDKR
VEPKSCDKHTHTCPPEAPEAAGGSPVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTY
RVVSVLTVLHQDWLNGKEYKCAVSNKALPAPI EKTISKAKGQPREPQVYTLPPSRDELTKNQVSLCAVKGFYPSDIAVEWESNGQ
PENNYKTPPVLDSDGSFFLVSKLTVDKSRWQQGNVFCSCVMHEALHNYHTQKSLSLSPG

>Sequence ID 106: SI-75X17 Chain A Nucleotide Sequence

GAGGTGCAGCTGCAGGAGTCTGGCGGCGGCTGGTGCAGGCTGGGGACAGCCTGAGCCTGCTGCCTGGTGTCTGGCCGCTCCTT
CAACTCCTACACCATGGGCTGGTTCCGCCAGGCCCTGGGAAGGAGCGGGAGTTTGTGGCTGCCATCCTGTGGAGTGGCCCCACCA
CCTACTATGCTGACTCTGTGAAGGCGGCTTCACCATCTCCAGAGACAATGCCAAGAACTGTGTACCTGCAGATGAACAGCCTG
AAGCCAGAGGACACAGCTGTGTACTACTGTGCTGCTGCCCTGGGAGTGTGGTGTCTGGCCCTGGCAATGTGTACAGCTACTGGGG
CCAGGCGACCCAGGTGACTGTCTCGAGCGGCGGTGGAGGGTCCGGCGGTGGTGGATCACAAGTGCAGTTGCAAGAAAGTGGTGGTA
GACTGGTTGAGCCTGGTGAACCTTGTCACTGACGTGTAACAAGCGGCATTGATCTGTCTCTAACGCCATCGGATGGGTCCGA
CAGGCCCCAGGAAAAGGTCTGGAGTGGATCGGAGTTATCTCGGAGCGGCAATACATACTACGCAAGCTGGGCAAAAGGGCGATT
TACGATATCAGGAGACCTCTACAGTTTATTTGAAAATGAACCTCCCTCCGGTCCGAGGATACCGCGATATATTACTGTGCCAGAG
GGGGTACTCTCTGATATCTGGGGCAGGGTACACTGGTTACAGTTTATCCGCTAGCACCAAGGCCCTCTGTGTTCCCTCTG
GCCCCCTCTCCAAGAGCACCTCTGGAGGCACTGCTGCCCTGGGCTGCCTGGTGAAGGACTACTTCCAGAGCCTGTGACTGTGTC
CTGGAATCTGGAGCCTGACCTCTGGAGTGCACACCTTCCCTGCTGTGCTGCAGAGCTCTGGCCTCTACAGCCTGTCTCTGTGG
TCACTGTGCCCTCTCCAGCCTGGGCACCCAGACCTACATCTGCAATGTGAACCACAAGCCCTCCAACCCAAGGTGGACAAGAGA
GTGGGCCCAAGTCTGTGACAAAGACCCACACCTGCCCTCCCTGAGGAGGCTGCTGGAGGCCCTCTGTGTTCCCTCTT
CCCTCCCAAGCCCAAGGACACCTGATGATCTCCAGGACCCAGAAAGTCACTGTGTGGTGGTGGATGTGTCCCATGAAGACCCAG
AAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGGTGCACAATGCCAAGACCAGCCAGAGAGAGAGTACAACCTCCACCTAC
CGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGAATGGGAAGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCC
TGCCCCCAATTGAGAAGACCATCTCCAAGGCCAAGGCCAGGCCAGGAGGCTTACACCTGCTCCAGAGATGAGC
TGACCAAGAACCAGGTGTCTCTGTCTGTGCTGTGAAAGGCTTACCCAGTGCATTGCTGTGGAGTGGGAGAGCAATGGCCAG
CCAGAGAACTACAAGACCACCCCTCTGTGCTGGACTCTGATGGCTCCTTCTTCTGGTCTCCAAGCTGACTGTGGACAAGAG
CCGCTGGCAGCAGGGCAATGTGTTCTCTGCTCTGTATGCATGAGGCCCTGCACAACCACTACACCCAGAAGAGCCTGAGCCTGA
GCCCTGGATGA

>Sequence ID 107: SI-75X17 Chain B Amino Acid Sequence

QVQLVQSGGGLVQAGGSLSLSCAFSGRTFSMYTMGWFRQAPGKEREFVAANRGRGLSPDIADSVNGRFTISRDNKNTLYLQMDSL
KPEDTAVVYCAADLQYSSWFPQRSSAEYDYWGQGTIVTVSSGGGGSGGGSDPQLTQSPSSLSATVQQRVTINCQSSQSVAKNNL
AWFQKPKPKPKLLYSASTLAAGVPSRFSGSGSGTQFTLTITRVQSEDFATYYCSARDSGNIQSFGGGTRVEIKRTVAAPSVFIF
PPSDEQLKSGTASVCLLNFFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSYSLSTLTLSKADYEKHKVYACEVTHQGLSSP
VTKSFNRGECGGDKTHTCPCPAPEAAGGPSVFLFPPKPKDLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREE
QYNSTYRVVSVLTVLHQDLNKGKEYKCAVSNKALPAPIEKTIKAKGQPREPQVYTLPPSRDELTKNQVSLWCLVKGFYPSDIAVE
WESNQGPENNYKTTTPVLDSDGSGFFLYSKLTVDKSRWQQGNVFCSCVMHEALHNRFTQKLSLSLSPG

>Sequence ID 108: SI-75X17 Chain B Nucleotide Sequence

CAGGTGCAGCTGGTGCAGTCTGGCGGAGGCTGGTGCAGGCTGGGGCAGCCTGAGCCTGAGCTGTGCCTTCTCTGGCCGACCTT
CTCCATGTACACCATGGGCTGGTTCCGCCAGGCCCCAGGGAAGGAGAGAGTTTGTGGCTGCCAACAGAGGCAGAGCCTGAGCC
CAGACATTGCTGACTCTGTGAATGGCCGCTTACCATCTCCAGAGACAATGCCAAGAACACCTGTACCTGCAGATGGACAGCCTG
AAGCCAGAGGACACAGCTGTGTACTACTGTGCTGCTGACCTGCAGTATGGCAGCAGCTGGCCTCAGAGGAGCTCTGCTGAGTATGA
CTACTGGGGCCAGGCGACCACTGTGACTGTCTCGAGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCAGATCCTCAATTGACCCAGT
CCCCTAGTAGCCTTTTCAACCGTGGGCCAGAGGTAACAATCAATTGCCAGTCAAGCCAGTCCGTAGCGAAGAATAAATTTG
GCATGGTTCCAACAAAAACCGGTAACCTCCTAAACTCCTTATCTACTCAGTTCAACCTTGCCGCGGGTGTGCCAGCCGGTT
CTCAGGCTCAGGTTCCGGGACTCAATTTACACTTACCATCACTCGCGTCCAAGTGAGGATTTTCAACCTACTATTGTTCTGCAC
GGGATTCGGGAACATACAGTCTTTGGGGTGGAACTCGGGTGGAGATAAAACGTACGGTGGCTGCCCCCTCTGTGTTTCATCTTC
CCACCCAGTGTGAGCAGCTGAAGAGTGGCACAGCCTCTGTGGTGTGCCTGCTCAACAACCTTCTACCCAGAGAAGCCAAGGTGCA
GTGGAAGGTGGACAATGCCCTGCAGAGTGGCAACAGCCAGGAGGTGTGACAGAGCAGGACAGCAAGGACAGCCTACAGCCTGT
CCTCCACCCTGACCTGTCCAAGGCTGACTATGAGAAGCACAAGGTGTATGCCTGTGAGGTGACCCACAGGGCCTGAGCAGCCT
GTGACCAAGAGCTTCAACCAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTCCCTGCCAGCCCCAGAGCTGCTGGAGG
CCCCTCTGTGTTCCCTTCCCTCCCAAGCCCAAGGACACCTGATGATCTCCAGGACCCAGAAAGTCACTGTGTGGTGGTGGATG
TGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAAAGTGACAATGCCAAGACCAAGCCAGAGAAGAG
CAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGAATGGGAAGGAGTACAAGTGTGCTGT
GTCCAACAAGGCCCTGACCTGCCCCATTGAGAAGACCATCTCAAGGCCAAGGGCCAGCCAGAGAGCCCCAGGTCTACACCTGTC
CTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGGCTGGTGAAGGCTTCTACCCAGTGCATTGCTGTGGAG
TGGGAGAGCAATGGCCAGCCAGAGAACAACCTACAAGACCACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTCTCTGTACAGCAA
GCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCTGCTCTGTATGCATGAGGCCCTGCACAACCGCTTACCC
AGAAGAGCCTGAGCCTGAGCCCTGGATGA

>Sequence ID 109: SI-75X19 Chain A Amino Acid Sequence

QVQLQESGGRLVQPGEPISLTCKTSGIDLSSNAIGWVRQAPGKLEWIGVIFGSGNTYYASWAKGRFTISRSTSTVYLMKNSLRSE
DTAIYFCARGGYSSDIWGQTLTVSSASTKGPSVFLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQGS
SGLYSLSSVTVPPSSSLGTQTYICNVNHPKSNKTKVDKRVFPEKSKDKTHTCPCPAPEAAGGPSVFLFPPKPKDLMISRTPEVTCV

VVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPREPQV
YTLPPSRDELTKNQVSLTSCAVKGFPYSDIAVEWESNGQPENNYKTTTPVLDSGDSFFLVSKLTVDKSRWQQGNVFSVCSVMHEALHN
HYTQKSLSLSPGGGGSGGGGSEVQLQESGGGLVQAGDSLSSLCLVSGRSFNSYTMGWFRQAPGKEREFVAAILWSGPTTYADSV
KGRFTISRDNKNTVYLQMNLSLKPEDTAVYYCAALGLVLAPGNVYSYWGQGTQVTVSS

>Sequence ID 110: SI-75X19 Chain A Nucleotide Sequence

CAAGTGCAGTTGCAAGAAAGTGGTGGTAGACTGGTTCAGCCTGGTGAACCCCTTGTCAGTACGTGTAAAACAAGCGGCATTGATCT
GTCCCTCTAAGCCATCGGATGGGTCCGACAGGCCCCAGGAAAAGGTCTGGAGTGGATCGGAGTTATCTTCGGGAGCGGCAATACAT
ACTACGCAAGCTGGGCAAAAGGGCGATTACGATATACGGAGCACCTCTACAGTTTATTTGAAAATGAACTCCCTCCGGTCCGAG
GATACCGCGATATATTACTGTGCCAGAGGGGGGTACTCCTCTGATATCTGGGGGCAGGGTACACTGGTTACAGTTTCATCCGCTAG
CACCAAAGGCCCCCTCTGTGTTCCCTCTGGCCCCCTCCTCCAAGAGCACCTCTGGAGGCACTGCTGCCCTGGGCTGCCTGGTGAAGG
ACTACTTCCAGAGCTGTGACTGTGTCTGGAACCTCTGGAGCCCTGACCTCTGGAGTGCACACCTTCCCTGCTGTGCTGCAGAGC
TCTGGCCTCTACAGCCTGTCTCTGTGGTCACTGTGCCCTCCTCCAGCCTGGGCACCCAGACCTACATCTGCAATGTGAACACAA
GCCCTCCAACACCAAGGTGGACAAGAGAGTGGAGCCCAAGTCTGTGACAAGACCCACACCTGCCCTCCCGAGCCCCAGAGG
CTGCTGGAGGCCCTCTGTGTTCCCTCTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACCCAGAAAGTACCTGTGTG
GTGGTGGATGTGTCCCATGAGACCCAGAAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGGTGCACAATGCCAAGACCAAGCC
CAGAGAAGAGCAGTACAACCTCCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCAAGGACTGGCTGAATGGGAAGGAGTACA
AGTGTGCTGTGTCCAACAAGGCCCTGCCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAGCCCCAGGTC
TACACCCCTGCCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTCTGTGCTGTGAAAGGCTTCTACCCAGTGACAT
TGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACTACAGACCAACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTTCC
TGGTCTCCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTGATGCATGAGGCCCTGCACAAC
CACTACACCCAGAAAGAGCCTGAGCCTGAGCCCTGGAGGAGGAGGAGGCTCTGGAGGAGGAGGATCCGAGGTGCAGTGCAGGAGTCT
TGGCGGCGGCTGGTGCAGGCTGGGGACAGCCTGAGCCTGTCTGCTGGTGTCTGGCCGCTCCTTCAACTCCTACCCATGGGCT
GGTTCCGCCAGGCCCTGGGAAGGAGCGGGAGTTTGTGGCTGCCATCCTGTGGAGTGGCCCCACCACTACTATGCTGACTCTGTG
AAGGGCCGCTTACCATCTCCAGAGACAATGCCAAGAACACTGTGTACCTGCAGATGAACAGCCTGAAGCCAGAGGACACAGCTGT
GTACTACTGTGCTGCCCTGGGAGTGTGGTGTGCTGGCCCTGGCAATGTGTACAGCTACTGGGGCCAGGGCACCCAGGTGACTG
TGTCTAGCTGA

>Sequence ID 111: SI-75X19 Chain B Amino Acid Sequence

DPQLTQSPSSLSATVGQRTVINCQSSQSVAKNNNLAWFQQKPGKPKLLIYASSTLAAGVPSRFSGSGSGTQFTLTITRVQSEDF
TYYCARSDSNIGSFGGGTVEIKRTVAAPSVFI FPPSDEQLKSGTASVVLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSK
DSTYSLSTLTLSKADYEKKHVKYACEVTHQGLSSPVTKSFNRGECGDKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMI SRTPEV
TCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPRE
PQVYTLTPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSGDSFFLVSKLTVDKSRWQQGNVFSVCSVMHEA
LHNRTTQKSLSLSPGGGGSGGGGQVQLVQSGGGLVQAGGSLSLSCAFSGRTFSMYTMGWFRQAPGKEREFVAANRGRGLSPDIA
DSVNGRFTISRDNKNTLYLQMDLSLKPEDTAVYYCAADLQYGSWFPQRSSAEYDYGWQGTQVTVSS

>Sequence ID 112: SI-75X19 Chain B Nucleotide Sequence

GATCCTCAATTGACCCAGTCCCTAGTAGCCTTTCTGCAACCGTGGGCCAGAGGTAACAATCAATTGCCAGTCAAGCCAGTCCGT
AGCGAAGAATAATAATTTGGCATGGTTCCAACAAAAACCGGGTAAACCTCCTAACTCCTTATCTACTCAGCTTCAACCCCTGCGG
CGGGTGTGCCAGCGGTTCTCAGGCTCAGGTTCCGGGACTCAATTTACTTACCATCACTCGCGTCCAAAGTGAAGGATTTTGCA
ACCTACTATTGTTCTGCACGGGATTCCGGGAACATACAGTCTTTGGGGGTGGAACCTCGGGTGGAGATAAAACGTACGGTGGCTGC
CCCCTCTGTGTTTCACTTTCCACCCAGTGATGAGCAGTGAAGAGTGGCACAGCCTCTGTGGTGTGCCTGCTCAACAACCTCTACC
CCAGAGAAGCCAAGGTGCAGTGGAGGTGGACAATGCCCTGCAGAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAGGACAGCAAG
GACAGCACCTACAGCCTGTCTCCACCCTGACCTGTCCAAGGCTGACTATGAGAAGCACAAAGGTGTATGCCTGTGAGGTGACCCA
CCAGGGCCTGAGCAGCCCTGTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTCCCTGCCAG
CCCCAGAAGCTGTGGAGGCCCTCTGTGTTCCCTCTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACCCAGAAAGT
ACCTGTGTGGTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAAAGTGCACAATGCCAA
GACCAAGCCAGAGAAGAGCAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCAAGGACTGGCTGAATGGGA
AGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAG
CCCCAGGTCTACACCTGCCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGGCTGGTGAAGGCTTCTACCC
CAGTGACATTGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACACAGACACCCCTCCTGTGCTGGACTCTGATGGCT
CCTTCTTCTCTGTACAGCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTGTGCTGATGCATGAGGCC
CTGCACAACCGCTTCAACCCAGAGCCTGAGCCTGAGCCCTGGAGGAGGAGGAGGCTCTGGAGGAGGAGGATCCCAGGTGCAGCT
GGTGCACTCTGGCGGAGGCTGGTGCAGGCTGGGGGAGCCTGAGCCTGAGCTGTGCTTCTCTGGCCGACCTTCTCCATGTACA
CCATGGGCTGGTTCGCCAGGCCCCAGGGAAGGAGAGAGTGTGGCTGCCAACAGAGGCAGAGGCCTGAGCCAGACATTGCT
GACTCTGTGAATGGCCGCTTACCATCTCCAGAGACAATGCCAAGAACCCTGTACCTGCAGATGGACAGCCTGAAGCCAGAGGA
CACAGCTGTGTACTACTGTGCTGACCTGCAGTATGGCAGCAGCTGGCCTCAGAGGAGCTCTGCTGAGTATGACTACTGGGGCC
AGGGCACCACTGTGACTGTGCTAGCTGA

>Sequence ID 113: SI-75X9 Chain A Amino Acid Sequence

QVQLQESGGRLVQPGPELSLTCKTSGIDLSSNAIGWVRQAPGKLEWIGVIFGSGNTYYASWAKGRFTISRSTSTVYLKMNLSLRSE
DTAIYYCARGGYSSDIWGQGLTVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSVGHVTFPAVLQS
SGLYSLSSVTVPSSTSLGTQTYICNVNHKPSNTKVDKRVEPKSKDKTHTCPPCPAPEAAGGPSVFLFPPKPKDLMISRTPEVTCV
VVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPREPQV
YTLPPSRDELTKNQVSLSCAVKGFPYSDIAVEWESNGQPENNYKTPPVLDSDGSFFLVSKLTVDKSRWQQGNVFSCSVMHEALHN
HYTQKSLSLSPG

>Sequence ID 114: SI-75X9 Chain A Nucleotide Sequence

CAAGTGCAGTTGCAAGAAAGTGGTGGTAGACTGGTTCAGCCTGGTGAACCCCTTGTCAGTGCAGTGTAAAACAAGCGGCATTGATCT
GTCCCTCTAAGCCATCGGATGGGTCCGACAGGCCCCAGGAAAAGGTCTGGAGTGGATCGGAGTTATCTTCGGGAGCGGCAATACAT
ACTACGCAAGCTGGGCAAAAGGGCGATTACGATATCACGGAGCACCTCTACAGTTTATTTGAAAATGAACTCCCTCCGGTCCGAG
GATACCGCGATATATTAAGTGTGCCAGAGGGGGTACTCCTCTGATATCTGGGGCAGGGTACACTGGTTACAGTTTCATCCGCTAG
CACCAAAGGGCCCTCTGTGTTCCCTCTGGCCCCCTCCTCCAAGAGCACCTCTGGAGGCACTGCTGCCCTGGGCTGCCTGGTGAAGG
ACTACTTCCAGAGCTGTGACTGTGCTGGAACCTCTGGAGCCCTGACCTCTGGAGTGCACACCTTCCTGCTGTGCTGCAGAGC
TCTGGCCTCTACAGCCTGTCTCTGTGGTCACTGTGCCCTCCTCCAGCCTGGGCACCCAGACCTACATCTGCAATGTGAACCACAA
GCCCTCCAACACCAAGGTGGACAAGAGAGTGGAGCCCAAGTCTGTGACAAGACCCACACCTGCCCTCCCTGCCAGCCCTCAGAGG
CTGCTGGAGGCCCTCTGTGTTCCCTCTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACCCAGAAAGTACCTGTGTG
GTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGGTGCACAATGCCAAGACCAAGCC
CAGAGAAGAGCAGTACAACCTCCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCAAGGACTGGCTGAATGGGAAGGAGTACA
AGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAGCCCCAGGTC
TACACCTGCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTCTGTGCTGTGAAAGGCTTCTACCCAGTGACAT
TGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACCTACAAGACCAACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTTCC
TGGTCTCCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTGATGCATGAGGCCCTGCACAAC
CACTACACCCAGAAGAGCCTGAGCCTGAGCCCTGGATGA

>Sequence ID 115: SI-75X9 Chain B Amino Acid Sequence

QVQLVQSGGGLVQAGGSLSLSCAFSGRTFSMYTMGWFRQAPGKEREFVAANRGRGLSPDIADSVNGRFTISRDNKNTLYLQMDSL
KPEDTAVYYCAADLQYSSWFPQRSSAEYDYWGQTTVTVS SGGGSGGGGSDPQLTQSPSSLSATVQQRVTINQSSSQSVAKNNNL
AWFQKPKPKPKLLIYASATLAAGVPSRFSGSGSGTQFTLTITRVQSEDFATYYCSARDSGNIQSFGGGTRVEIKRTVAAPSVFIF
PPSDEQLKSGTASVCLLNFFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSYSLSTLTLSKADYEEKHKVYACEVTHQGLSSP
VTKSFNRGECGGDKTHTCPPCPAPEAAGGPSVFLFPPKPKDLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREE
QYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLWCLVKGFYPSDIAVE
WESNGQPENNYKTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNRTQKSLSLSPG

>Sequence ID 116: SI-75X9 Chain B Nucleotide Sequence

CAGGTGCAGCTGGTGCAGTCTGGCGGAGGCTGGTGCAGGCTGGGGCAGCCTGAGCCTGAGCTGTGCCTTCTCTGGCCGCACCTT
CTCCATGTACACCTGGGCTGGTTCGCGCAGGCCCCAGGAAAGGAGAGAGATTGTGGCTGCCAACAGAGGCGAGGCGCTGAGCC
CAGACATTGCTGACTCTGTGAATGCCCGCTTCACCATCTCCAGAGACAATGCCAAGAACCCCTGTACCTGCAGATGGACAGCCTG
AAGCCAGAGGACACAGCTGTGTACTACTGTGCTGCTGACCTGCAGTATGGCAGCAGCTGGCCTCAGAGGAGCTCTGCTGAGTATGA
CTACTGGGGCCAGGGCACCACTGTGACTGTCTCGAGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCAGATCCTCAATTGACCCAGT
CCCCTAGTAGCCTTTCTGCAACCGTGGGCCAGAGGTAACAATCAATTGCCAGTCAAGCCAGTCCGTAGCGAAGAATAATAATTTG
GCATGGTTCACCAAAAAACCGGTAACCTCCTAACTCCTTATCTACTCAGCTTCAACCCCTTGCCGCGGGTGTGCCAGCCGGT
CTCAGGCTCAGGTTCCGGGACTCAATTTACACTTACCATCACTCGCTCCAAAGTGAGGATTTTGCAACCTACTATTGTTCTGCAC
GGGATTCCGGGAACATACAGTCTTTGGGGTGGAACTCGGGTGGAGATAAAACGTACGGTGGCTGCCCCCTCTGTGTTTCATCTTC
CCACCCAGTATGAGCAGCTGAAGAGTGGCACAGCCTCTGTGGTGTGCCTGCTCAACAACCTTCTACCCAGAGAAGCCAAGGTGCA
GTGGAAGGTGGACAATGCCCTGCAGAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAGGACAGCAAGGACAGCACCTACAGCCTGT
CCTCCACCCCTGACCTGTCCAAGGCTGACTATGAGAAGCACAAGGTGTATGCCTGTGAGGTGACCCACAGGGCCTGAGCAGCCCT
GTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTCCCTGCCAGCCCCAGAAGCTGCTGGAGG
CCCCTCTGTGTTCTCTTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACCCAGAAAGTCACTGTGTGGTGGTGGATG
TGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGTGCACAATGCCAAGACCAAGCCAGAGAAGAG
CAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCAAGGACTGGCTGAATGGGAAGGAGTACAAGTGTGCTGT
GTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAGCCCCAGGTCTACACCCCTGC
CTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGCCTGGTGAAGGCTTCTACCCAGTGACATTGCTGTGGAG
TGGGAGAGCAATGGCCAGCCAGAGAACAACCTACAAGACCAACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTTCTGTACAGCAA
GCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTGATGCATGAGGCCCTGCACAACCGCTTCACCC
AGAAGAGCCTGAGCCTGAGCCCTGGATGA

>Sequence ID 117: SI-75X11 Chain A Amino Acid Sequence

EVQLQESGGGLVQAGDLSLSCLVSGRSFNSYTMGWFRQAPGKEREFVAAILWSGPTTYADSVKGRFTISRDNKNTVYLQMNSL
KPEDTAVYYCAAALGVVLAPGNVYSYWGQGTQVTVSSGGGGSGGGGSQVQLQESGGRLVQPGPEPLSLTCKTSGIDLSSNAIGWVR
QAPGKLEWIGVIFSGNTYYASWAKGRFTISRSTSVYLMNSLRSEDAIYYCARGGYSSDIWGQGLTVTVSSASTKGPSVFPL
APSSKSTSGGTAALGCLVKDYFPEPVTWSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLGTQTYICNVNHKPSNTKVDKR
VEPKSCDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVTVCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTY
RVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLSCAVKGFYPSDIAVEWESNGQ
PENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPG

>Sequence ID 118: SI-75X11 Chain A Nucleotide Sequence

GAGGTGCAGCTGCAGGAGTCTGGCGGCGGCTGGTGCAGGCTGGGGACAGCCTGAGCCTGTCTGCCTGGTGTCTGGCCGCTCCTT
CAACTCCTACACCATTGGGCTGGTTCGCCAGGCCCCCTGGGAAGGAGCGGGAGTTTGTGGCTGCCATCCTGTGGAGTGGCCCCACCA
CCTACTATGTGACTCTGTGAAGGCGCGCTTCACCATCTCCAGAGACAATGCCAAGAACTGTGTACCTGCAGATGAACAGCCTG
AAGCCAGAGGACACAGCTGTGTACTACTGTGCTGCTGCCCTGGGAGTGTGCTGTGCTGGCCCCCTGGCAATGTGTACAGCTACTGGGG
CCAGGGCACCCAGGTGACTGTCTCGAGCGGCGGTGGAGGCTCCGGCGGTGGTGGATCAACAAGTGCAGTTGCAAGAAAGTGGTGGTA
GACTGGTTCAGCCTGGTGAACCTTGTCACTGACGTGTAAAACAAGCGGCATTGATCTGTCTCTAACGCCATCGGATGGGTCCGA
CAGGCCCCAGGAAAAGGTGTGGAGTGGATCGGAGTTATCTCGGAGCGGCAATACATACTACGCAAGCTGGGCAAAAGGGCGATT
TACGATATCACGGAGCACCTCTACAGTTTATTTGAAAATGAACCTCCCTCCGGTCCGAGGATACCGCGATATATTACTGTGCCAGAG
GTGGAGCCCCAAGTCTGTGACAAGACCCACACCTGCCCTCCCTGCCAGCCCCAGAGGCTGCTGGAGGCCCTCTGTGTCTCTCTT
GCCCCCTCCTCCAAGAGCACCTCTGGAGGCACTGCTGCCCTGGGCTGCCCTGGTGAAGGACTACTTCCAGAGCCTGTGACTGTGTC
CTGGAATCTGGAGCCCTGACCTCTGGAGTGCACACCTTCCCTGCTGTGCTGCAGAGCTCTGGCCTCTACAGCCTGTCTCTGTGG
TCACTGTGCCCTCCTCCAGCCTGGGCACCCAGACCTACATCTGCAATGTGAACCACAAGCCCTCCAACACCAAGGTGGACAAGAGA
GTGGAGCCCCAAGTCTGTGACAAGACCCACACCTGCCCTCCCTGCCAGCCCCAGAGGCTGCTGGAGGCCCTCTGTGTCTCTCTT
CCCTCCCAAGCCCAAGGACACCTGATGATCTCCAGGACCCAGAACTCACCTGTGTGGTGGTGGATGTGTCCCATGAAGACCCAG
AAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGGTGCACAATGCCAAGACCAAGCCAGAGAGAGAGAGTACAACCTCCACCTAC
CGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGAATGGGAAGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCC
TGCCCCCATTTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAGCCCCAGGTCTACACCTGCCCTCCAGAGATGAGC
TGACCAAGAACCAGGTGTCCCTGTCTGTGCTGTGAAAGGCTTCTACCCAGTGACATTGCTGTGGAGTGGGAGAGCAATGGCCAG
CCAGAGAACAATAACAAGACACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTTCTGGTCTCCAAGCTGACTGTGGACAAGAG
CCGCTGGCAGCAGGGCAATGTGTTCTCTGCTCTGTGATGCATGAGGCCCTGCACAACCACTACACCCAGAAGAGCCTGAGCCTGA
GCCCTGGATGA

>Sequence ID 119: SI-75X11 Chain B Amino Acid Sequence

DPQLTQSPSSLSATVGQRTINQSSQSVAKNNNLAWFQKPGKPKPLLIYASTLAAGVPSRFSGSGSGTQFTLTITRVQSEDF
TYYCSARDSGNIQSFGGTRVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSK
DSTYLSLSTLTLSKADYEKHKVYACEVTHQLSSPVTKSFNRGECGGDKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEV
TCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPRE
PQVYTLPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFCFSVMHEA
LHNRTQKSLSLSPG

>Sequence ID 120: SI-75X11 Chain B Nucleotide Sequence

GATCCTCAATTGACCCAGTCCCCTAGTAGCCTTTCTGCAACCGTGGGCCAGAGGTAACAATCAATTGCCAGTCAAGCCAGTCCGT
AGCGAAGAATAATAATTTGGCATGGTTCCAAACAAAACCGGGTAACCTCCTAACTCCTTATCTACTCAGCTTCAACCCCTTGCCG
CGGGTGTGCCAGCCGGTTCTCAGGCTCAGGTTCGGGACTCAATTTACACTTACCATCACTCGCGTCCAAGTGAGGATTTTGCA
ACCTACTATTGTTCTGCACGGGATTCCGGGAACATACAGTCTTTGGGGGTGGAACCTCGGGTGGAGATAAAACGTACGGTGGCTGC
CCCCCTGTGTTTATCTTCCACCCAGTGTGAGCAGCTGAAGAGTGGCACAGCCTCTGTGGTGTGCCTGCTCAACAATTTCTACC
CCAGAGAAGCCAAGGTGCAAGTGAAGGTGGACAATGCCCTGCAAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAGGACAGCAAG
GACAGCACCTACAGCTGTCTCCACCTGACCTGTCCAAGGCTGACTATGAGAAGCACAAGGTGTATGCCTGTGAGGTGACCCA
CCAGGGCCTGAGCAGCCCTGTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTCCTGCCAG
CCCCAGAAGCTGTGGAGGCCCTCTGTGTTCTCTTCCCTCCCAAGCCCAAGGACACCTGATGATCTCCAGGACCCAGAAAGTC
ACCTGTGTGGTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGAAGTGCACAATGCCAA
GACCAAGCCAGAGAAGAGCAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGAATGGGA
AGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAG
CCCCAGGTCTACACCTGCCCTCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGCCTGGTGAAGGCTTCTACCC
CAGTGACATTGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAATAACAAGACACCCCTCCTGTGCTGGACTCTGATGGCT
CCTTCTTCTGTACAGCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCTGCTGTGCTGATGCATGAGGCC
CTGCACAACCGCTTACCCAGAAGAGCCTGAGCCTGAGCCTGGATGA

>Sequence ID 121: SI-75X15 Chain A Amino Acid Sequence

QVQLQESGGRLVQPGPELSLTCKTSGIDLSSNAIGWVRQAPGKGLEWIGVIFGSGNTYYASWAKGRFTISRSTSTVYLKMNLSLRSE
DTAIYYCARGGYSSDIWQQTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQS
SGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSKDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVTCV
VVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPREPQV
YTLPPSRDELTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFCSCVMHEALHN
HYTQKSLSLSPG

>Sequence ID 122: SI-75X15 Chain A Nucleotide Sequence

CAAGTGCAGTTGCAAGAAAGTGGTGGTAGACTGGTTCAGCCTGGTGAACCCCTTGCTACTGACGTGTAAAACAAGCGGCATTGATCT
GTCCCTTAACGCCATCGGATGGGTCCGACAGGCCCCAGGAAAAGGTCTGGAGTGGATCGGAGTTATCTTCGGGAGCGGCAATACAT
ACTACGCAAGCTGGGCAAAAGGGCGATTACGATATCACGGAGCACCTCTACAGTTTATTTGAAAATGAACTCCCTCCGGTCCGAG
GATACCGCGATATATTAAGTGTGCCAGAGGGGGGTACTCCTCTGATATCTGGGGGCGAGGTACACTGGTTACAGTTTCATCCGCTAG
CACCAGAGGGCCCTCTGTGTTCCCTCTGGCCCCCTCCTCCAAGAGCACCTCTGGAGGCACTGCTGCCCTGGGGTGCCTGGTGAAGG
ACTACTTCCAGAGCCTGTGACTGTGTCTGGAACCTCTGGAGCCCTGACCTCTGGAGTGCACACCTCCCTGCTGTGCTGCAGAGC
TCTGGCCTCTACAGCCTGTCTCTGTGGTCACTGTGCCCTCCTCCAGCCTGGGCACCCAGACCTACATCTGCAATGTGAACCACAA
GCCCTCCAACACCAAGGTGGACAAGAGAGTGGAGCCCAAGTCTGTGACAAGACCCACACCTGCCCTCCCTGCCAGCCCCAGAGG
CTGCTGGAGGCCCTCTGTGTTCCCTCTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACCCAGAAGTCACTGTGTG
GTGGTGGATGTGTCCCATGAGACCCAGAAGTGAAGTCAACTGGTATGTGGATGGAGTGGAGGTGCACAATGCCAAGACCAAGCC
CAGAGAAGAGCAGTACAACCTCCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCAAGGACTGGCTGAATGGGAAGGAGTACA
AGTGTGCTGTGTCCAACAAGGCCCTGCCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAGCCCCAGGTC
TACACCCTGCCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTCTGTGCTGTGAAAGGCTTCTACCCCAAGTACAT
TGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACCTACAGAACACCCCTCCTGTGCTGACTGTGATGGCTCCTCTCTCC
TGGTCTCCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTGATGCATGAGGCCCTGCACAAC
CACTACACCAGAAAGCCTGAGCCTGAGCCCTGGATGA

>Sequence ID 123: SI-75X15 Chain B Amino Acid Sequence

DPQLTQSPSSLSATVGQRVTINQSSQSVAKNNNLAWFQQKPGKPKLLIYASTLAAGVPSRFSGSGSGTQFTLTITRVQSEDFA
TYYCSARDSGNIQSFGGTRVEIKRTVAAPSVFIFPPSDEQLKSGTASVVLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSK
DSTYLSLSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGECGGDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEV
TCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPRE
PQVYTLPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFCSCVMHEA
LHNRTQKSLSLSPGGGGGSGGGGQVQLVQSGGGLVQAGGSLSLSCAFSGRTFSMYTMGWFRQAPGKEREFVAANRGRGLSPDIA
DSVNGRFTISRDNKNTLYLQMDSLKPEDTAVVYCAADLQYGSWPFQRSSAEYDIWQGTTVTVSS

>Sequence ID 124: SI-75X15 Chain B Amino Acid Sequence

GATCCTCAATTGACCCAGTCCCTAGTAGCCTTTCTGCAACCGTGGGCCAGAGGGTAACAATCAATTGCCAGTCAAGCCAGTCCGT
AGCGAAGAATAATAATTTGGCATGGTTCCAACAAAAACGGGTAAACCTCCTAACTCCTTATCTACTCAGCTTCAACCCCTGCCG
CGGGTGTGCCAGCCGGTTCTCAGGCTCAGGTTCGGGACTCAATTTACACTTACCATCACTCGCGTCCAAAGTGAGGATTTTGCA
ACCTACTATTGTTCTGCACGGGATTCGGGAACATACAGTCTTTGGGGGTGGAACCTCGGGTGGAGATAAAACGTACGGTGGCTGC
CCCCCTGTGTTCATCTTCCACCCAGTGATGAGCAGCTGAAGAGTGGCACAGCCTCTGTGGTGTGCCTGCTCAACAATTCTACC
CCAGAGAAGCCAAGGTGCAAGTGGAGGTGGACAATGCCCTGCAGAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAGGACAGCAAG
GACAGCACCTACAGCCTGTCTCCACCCGTGACCTGTCCAAGGCTGACTATGAGAAGCACAAAGGTGTATGCCTGTGAGGTGACCCA
CCAGGGCCTGAGCAGCCCTGTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTCCCTGCCAG
CCCCAGAAGCTGCTGGAGGCCCTCTGTGTTCTCTTCCCTCCCAAGCCCAAGGACACCCCTGATGATCTCCAGGACCCAGAAGTC
ACCTGTGTGGTGGTGGATGTGTCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAAAGTGCACAATGCCAA
GACCAAGCCAGAGAAGAGCAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACCAAGGACTGGCTGAATGGGA
AGGAGTACAAGTGTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAG
CCCCAGGTCTACACCTGCCCTCCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGCCTGGTGAAGGCTTCTACCC
CAGTGACATTGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAATAACAAGACACCCCTCCTGTGCTGACTCTGATGGCT
CCTTCTTCTGTACAGCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTGTGATGCATGAGGCC
CTGCACAACCGCTTCAACCAAGAGCCTGAGCCTGAGCCCTGGAGGAGGAGGAGGCTCTGGAGGAGGAGGATCCAGGTGCAGCT
GGTGCAGTCTGGCGGAGGCCCTGGTGCAGGCTGGGGGAGCCTGAGCCTGAGCTGTGCCTTCTCTGGCCGACCTTCTCCATGTACA
CCATGGGCTGGTTCGCCAGGCCCCAGGGAAGGAGAGAGTGTGGTGGTGCACAACAGAGGCGAGAGGCCCTGAGCCCAGACATTGCT
GACTCTGTGAATGGCCGCTTCAACATCTCCAGAGACAATGCCAAGAACACCCCTGTACCTGCAGATGGACAGCCTGAAGCCAGAGGA
CACAGCTGTGACTACTGTGCTGTGACCTGCAGTATGGCAGCAGCTGGCCTCAGAGGAGCTCTGCTGAGTATGACTACTGGGGCC
AGGGCACCACTGTGACTGTGTCTAGCTGA

>Sequence ID 125: SI-75X13 Chain A Amino Acid Sequence

QVQLQESGGRLVQPGGEPLSLTCKTSGIDLSSNAIGWVRQAPGKGLEWIGVIFGSGNTYYASWAKGRFTISRSTSTVYLKMNLSLRSE
DTAIYYCARGGYSSDIWGQGLTVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSKVHFFPAVLQSS
SGLYSLSSVTVTPSSSLGTQTYICNVNHKPSNTKVDKRVFEPKSCDKHTHTCPPEAPEAAGGPSVFLFPPKPKDTLMISRTPEVTCV
VVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPREPQV
YTLPPSRDELTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLVSKLTVDKSRWQQGNVFSQVMHEALHN
HYTQKSLSLSPGGGGGGGGGGSEVQLQESGGGLVQAGDSLSSLCLVSGRFSNYSYTMGWFRQAPGKEREFAAILWSGPTTYADSV
KGRFTISRDNANKNTVYQLQMNLSLKPEDTAVYYCAAALGVLVLPAGNVYSYWGQGTQVTVSS

>Sequence ID 126: SI-75X13 Chain A Nucleotide Sequence

CAAGTGCAGTTGCAAGAAAGTGGTGGTAGACTGGTTCAGCCTGGTGAACCCCTGTCACTGACGTGTAAACAAGCGGCATTGATCT
GTCTCTAACGCCATCGGATGGGTCCGACAGGCCCCAGGAAAAGGTCTGGAGTGGATCGGAGTTATCTCGGGAGCGGCAATACAT
ACTACGCAAGCTGGGCAAAAGGGCGATTTACGATATCACGGAGCACCTCTACAGTTTATTTGAAAATGAACTCCCTCCGGTCCGAG
GATACCGCGATATATTACTGTGCCAGAGGGGGGTACTCCTCTGATATCTGGGGGCAGGGTACACTGGTTACAGTTTCATCCGCTAG
CACCAAAGGGCCCTCTGTGTTCCTCTGGCCCCCTCCTCCAAGAGCACCTCTGGAGGCACTGCTGCCCTGGGCTGCCTGGTGAAGG
ACTACTTCCAGAGCCTGTGACTGTGTCTGGAACCTCTGGAGCCCTGACCTCTGGAGTGCACACCTTCCTGCTGTGCTGCAGAGC
TCTGGCCTCTACAGCCTGTCTCTGTGGTCACTGTGCCCTCCTCCAGCCTGGGCACCCAGACCTACATCTGCAATGTGAACCACAA
GCCCTCCAACACCAAGGTGGACAAGAGAGTGGAGCCCAAGTCTGTGACAAGACCCACACCTGCCCTCCCTGCCAGCCCCAGAGG
CTGCTGGAGGGCCCTCTGTGTTCCTCTCCCTCCCAAGCCCAAGGACACCTCTGATGATCTCCAGGACCCAGAAAGTCACTGTGTG
GTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGGAGGTGCACAATGCCAAGACCAAGCC
CAGAGAAGAGCAGTACAACCTCCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACACAGGACTGGCTGAATGGGAAGGAGTACA
AGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAGCCCCAGGTG
TGCCCTCGCTGCTGACAGATGAGCTGACCAAGAAGCAGGTGCTCCTGTCTGTGCTGTGAAAGGCTTACCCCCAGTGACAT
TGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACCTACAAGACCAACCCCTCCTGTGCTGGACTCTGATGGCTCCTTCTTCC
TGGTCTCCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTCTGTGATGATGAGGCCCTGCACAAAC
CACTACACCCAGAAGAGCCTGAGCCTGAGCCCTGGAGGAGGAGGAGGCTCTGGAGGAGGAGGATCCGAGGTGCAGCTGCAGGAGTC
TGGCGGCGGCTGGTGCAGGCTGGGACAGCCTGAGCCTGTCTGCTGGTGTCTGGCCGCTCCTTCAACTCCTACACCATGGGCT
GGTCCGCCAGGCCCCCTGGGAAGGAGCGGGAGTTTGTGGCTGCCATCCTGTGGAGTGGCCCCACCACCTACTATGCTGACTCTGTG
AAGGCCCGCTTACCATCTCCAGAGACAATGCCAAGAACACTGTGTACCTGCAGATGAACAGCCTGAAGCCAGAGGACACAGCTGT
GTACTACTGTGCTGCTGCCCTGGGAGTGTGGTGTGCTGGCCCTGGCAATGTGTACAGCTACTGGGGCCAGGGCACCCAGGTGACTG
TGTCTAGCTGA

>Sequence ID 127: SI-75X13 Chain B Amino Acid Sequence

DPQLTQSPSSLSATVGQRVTINCQSSQSVAKNNNLAWFQKPGKPKKLLIYASTLAAGVPSRFSGSGSGTQFTLTITRVQSEDFA
TYYCSARDSGNIQSFGGGTVEIKRTVAAPSVFIFFPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSK
DSTYLSSTLTLSKADYEKKHVKYACEVTHQLSSPVTKSFNRGECGGDKHTHTCPPEAPEAAGGPSVFLFPPKPKDTLMISRTPEV
TCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPRE
PQVYTLPPSRDELTKNQVSLVCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSQVMHEA
LHNRTQKSLSLSPG

>Sequence ID 128: SI-75X13 Chain B Nucleotide Sequence

GATCCTCAATTGACCCAGTCCCCTAGTAGCCTTTCTGCAACCGTGGGCCAGAGGTAACAATCAATTGCCAGTCAAGCCAGTCCGT
AGCGAAGAATAATAATTTGGCATGGTTCCAACAAAAACCGGTAACCTCCTAACTCCTTATCTACTCAGCTTCAACCTTGCCG
CGGGTGTGCCAGCCGGTTCTCAGGCTCAGGTTCCGGGACTCAATTTACACTTACCATCACTCGCGTCCAAAGTGAGGATTTTGCA
ACCTACTATTGTTCTGCACGGGATTCCGGGAACATACAGTCTTTGGGGGTGGAACCTCGGGTGGAGATAAAACGTACGGTGGCTGC
CCCCCTCTGTGTTCTCTTCCACCCAGTGTGAGCAGCTGAAGAGTGGCACAGCCTCTGTGGTGTGCCTGCTCAACAACCTTCTACC
CCAGAGAAGCCAAGGTGCAAGTGAAGGTGGACAATGCCCTGCAGAGTGGCAACAGCCAGGAGAGTGTGACAGAGCAGGACAGCAAG
CAGAGCACCTACAGCCTGTCTCCACCTGACCTGTCCAAGGCTGACTATGAGAAGCACAAAGGTGTATGCCTGTGAGGTGACCCA
CCAGGGCCTGAGCAGCCCTGTGACCAAGAGCTTCAACCGAGGAGAGTGTGGAGGAGACAAGACCCACACCTGCCCTCCTGCCAG
CCCCAGAAGCTGCTGGAGGCCCTCTGTGTCTCTTCCCTCCCAAGCCCAAGGACACCTGATGATCTCCAGGACCCAGAAAGTC
ACCTGTGTGGTGGTGGATGTGTCCCATGAAGACCCAGAAGTGAAGTTCAACTGGTATGTGGATGGAGTGAAGTGCACAATGCCAA
GACCAAGCCCAGAGAAGAGCAGTACAACAGCACCTACCGAGTGGTGTCTGTGCTGACTGTGCTGCACAGGACTGGCTGAATGGGA
AGGAGTACAAGTGTGCTGTGTCCAACAAGGCCCTGCCTGCCCCATTGAGAAGACCATCTCCAAGGCCAAGGGCCAGCCAGAGAG
CCCCAGGTCTACACCTGCCTCCTCCAGAGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGCCTGGTGAAGGCTTCTACCC
CAGTGACATTGCTGTGGAGTGGGAGAGCAATGGCCAGCCAGAGAACAACCTACAAGACCAACCCCTCCTGTGCTGGACTCTGATGGCT
CCTTCTCCTGTACAGCAAGCTGACTGTGGACAAGAGCCGCTGGCAGCAGGGCAATGTGTTCTCCTGCTGTGCTGATGCATGAGGCC
CTGCACAACCGCTTACCCAGAAGAGCCTGAGCCTGAGCCTGGATGA

>Sequence ID 129: SI-38P11 Chain A Amino Acid Sequence

QIVLSQSPAILSASPGKVTMTTCRASSSVSIHWFQOKPGSSPKPWYATSNLASGVPVRFSGSGSGTSYSLTISRVEAEDAATYY
CQOWTSNPPTFGGGTKLTVLGGGGSGGGSGGGSGGGSGVQLQPGALVKPGASVKMSCKASGYTFTSYNMHWVKQTPGRGLE
WIGAIYPNGDTSYNQKFKGKATLTADKSSSTAYMQLSLSTSEDSAVYYCARSTYYGGDWYFNVWAGTTVTVSSGGGGSGGGGSE
VQLVESGGGLVQPGGSLRLSCAASGFTITSNAMSWVRQAPGKGLEWIGVITGRDITYYASWAKGRFTISRDNSTNTLYLQMNSLRA
EDTAVYYCARDGSSAITSNIWQGQTLTVSSASTKGPSTVFLAPSSKSTSGGTAALGCLVKDYFPEPTVTSWNSGALTSGVHTF
PAVLQSSGLYSLSSVTVPSSSLGTQTYICNVNHKPSNTKVDKRVPEPKSCDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRT
PEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQ
PREPQVYTLPPSRDELTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFCFSVM
HEALHNHYTQKSLSLSPGGGGSGGGSGGGSDVMTQSPSSVSASVGRVITTCQASQNIIRTYLSWYQQKPKAPKLLIYAAANLASGV
PSRFSGSGSGTDFTLTISDLEPGDAATYYCQSTYLGTDYVGGAFGGGTCLTVLGGGGSGGGSGGGSGGGSGSEVQLVESGGGLVQ
PGGSLRLSCTASGFTISSYHMQWVRQAPGKGLEIYGTISSGGNVYIASSARGRFTISRPSKNTVDLQMNLSLRAEDTAVYYCARDS
GYSDDPMWQGQTLTVSS

>Sequence ID 130: SI-38P11 Chain A Nucleotide Sequence

CAGATCGTGCTGAGCCAGAGCCCCGCCATCCTGAGCGCCAGCCCCGGCGAGAGGTGACCATGACCTGCCGGGCCAGCAGCAGCGT
GAGCTACATCCACTGGTTCCAGCAGAAGCCCGGCAGCAGCCCCAGGCCCTGGATCTACGCCACCAGCAACCTGCCAGCGCGCTGC
CCGTGCGGTTCCAGCGGCAGCGGCAGCGGCACCGCTACAGCCTGACCATCAGCCGGGTGGAGGCCGAGGACGCCGCCACCTACTAC
TGCCAGCAGTGGACAGCAACCCCCCACCTTCGGCGGGCGGCACCAAGCTGACCGTGCTGGGCGGTGGCGGTAGTGGGGGAGGCGG
TTCTGGCGGCGAGGGTCCGGCGGTGGAGGATCAGAGTGCAGCTGCAGCAGCCCCGGCGCGGAGCTGGTGAAGCCCCGGCGGCAGCG
TGAAGATGAGCTGCAAGGCCAGCGGCTACACCTTCACCAAGCTACAACATGCAGTGGGTGAAGCAGACCCCCGGCGGGGCTGGAG
TGGATCGGCGCCATCTACCCCCGCAACGGCGACACCGCTACAACAGAGTTCAAGGGCAAGGCCACCTGACCGCCGACAAGAG
CAGCAGCACCGCTACATGAGCTGAGCAGCCTGACCAAGGAGGACAGCGCCGTGTACTACTGCGCCCCGAGCAGCTACTACGCGG
GCGACTGGTACTTCAACGTGTGGGGCGCCGGCACCACCGTGACCGTCTCGAGCGCGGTGGAGGGTCCGGCGGTGGTGGATCAGAG
GTGCGAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGGTCCCTGAGACTCTCTGTGCAGCCTCTGGATTACCATCAG
TACCAATGCAATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGATCGGAGTCATTACTGGTCTGATATCACATACT
ACGCGAGCTGGGCGAAAGGAGATTCACCATCTCCAGAGACAATTCAGAAACACGCTGTATCTCAAATGAACAGCCTGAGAGCC
GAGGACACGGCTGTGTATTACTGTGCGAGAGACGGTGGTCTTCTGCTATTACTAGTAACAACATTTGGGGCCAGGGAACCTGGT
CACCCTGTCCTCAGCTAGCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAGAGCACCTCTGGGGGCACAGCGGCC
TGGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCTGGAAGTCAAGCGCCCTGACCAAGCGCGTGCACACCTTC
CCGGCTGTCTACAGTCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACAT
CTGCAACGTGAATCACAAGCCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAAATCTTGTGACAAAACCTCACACATCCCCAC
CCCCGAGAACCACAGGTGTATACCTGCCCCCATCCCGGGATGAGCTGACCAAGAACAGGTGACGCTGTCTGCGCCGTCAAAGG
CTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCTCCCGTGTGGACT
CCGACGGCTCCTTCTCTCTGAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATG
CATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCGGGTGGCGGCGGGGTTCAAGTGGTGGGGGATCCGA
CGTTGTGATGACGCGAGTCTCCTAGTTCAGTATCAGCGTCTGTTGGGGATCGAGTCACGATTACATGCCAGGCGAGCCAAATATTA
GGACGTATCTGTCTTGGTATCAACAAAAGCCTGGTAAGGCTCCAAAACCTCTCATTTACGCCGCTGCCAACTTGGCTAGTGGAGTA
CCTTCACGCTTTAGTGGGTGAGTTCTGGAACAGATTTTACGTTGACGATCTCCGATTTGGAACAGGGGACGCTGCCACGTATTA
TTGCCAGTCCACCTACCTCGGACTGACTACGTTGGTGGGCGTTTGGCGGAGGAACAAAACCTCACTGTACTTGGTGGTGGTGGTT
CAGCGGGGGGGGTTCCGGCGGAGGCGGTTCTGGGGGTGGAGTTCCGAGGTTCAAGTTGGTTGAAAGTGGGGGGGACTCGTTTACG
CCTGGAGGCTCTTTGCGACTTTCTGTACCGCTTCTGGGTTCACTATAAGTTTATATCATATGCAATGGGTAAAGACAGGCGCCTGG
TAAGGGACTTGAATACATAGGAACAATAAGCTCTGGTGGTAACGCTCTATTACGCTCATCCGCGCGGGGAGGTTTACAAATTTCCA
GGCCTTCTAGCAAAAACACGGTAGATCTGCAAATGAACCTCTCTCGCGCTGAAGATACAGCAGTCTACTACTGCGCCAGGGATTCA
GGTATTCTGACCCCATGTGGGGCAGGGCACATTGGTTACCGTCTCTTGA

>Sequence ID 131: SI-38P11 Chain B Amino Acid Sequence

ENVLTQSPASLSASPGERVITITCSASSSVSMHWYQOKPGQAPKLWIYDTSKLASGVPVSRFSGSGSGNDHTLTITSSMEPEDFATYY
CFQGSVYPFTFGQGTQVTVLGGGGSGGGSGGGSGGGSGVTLTKESGPGVLVQPGQTLTLTCAFSGFSLSSTSGMGVWIRQPPGK
LEWLAIHWDDDKRYNPALKSRLTISKDTSKNQVYLQMNSLDAEDTAVYYCARMELWSYFDYWGQGLTVTVSSGGGGSGGGGSDV
VMTQSPSTLSASVGRVITINCQASESISWLAHYQQKPKAPKLLIYEASKLASGVPVSRFSGSGSGTEFTLTISLQPDDFATYYC
QGYFYFISRTYVNSFGGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSK
DSTYLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGECGGDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEV
TCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPRE
PQVYTLPPSRDELTKNQVSLVCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFCFSVMHEA
LHNRFTQKSLSLSPGGGGSGGGGSDIQMTQSPSTLSASVGRVITITCQASQSISSHLNHYQQKPKAPKLLIYKASTLASGVPSPR

FSGSGSGTEFTLTISLQPDFFATYYCQQGYSWGNVDNVFGGGKVTVLGGGSGGGSGGGSGGGSGGGSEVQLLESGGGLVQPGGS
LSLSCAASGSFSSSYDMCWVRQAPGKLEWIAICAAAGSAGITYDANWAKGRFTISRDNKNTLYLQMNLSRAEDTAVYYCARSAF
SFDYAMDLDWGQGLTVTVSS

>Sequence ID 132: SI-38P11 Chain B Nucleotide Sequence

GAAATGTATTGACACAGAGCCCCGCTCCCTCAGTGCCTCACCTGGGGAAGGGTAACATCACTTGCCTGCATCAAGCAGCGT
CTCATACATGCATTGGTATCAACAAAAGCCTGGACAGGCCCCAAGCTCTGGATATACGATACGAGCAAGCTGGCTTCCGGCGTAC
CTAGCCGCTTCAGTGGTTCGGGCTCAGGCAACGATCACACCCTTACGATTTCAGTATGGAACCCGAAGATTTTGCAACTTATTAT
TGTTTCCAGGGGAGCGTGATCCCACTTTCGGGCGAGGGACAAAAGTGACCGTCTAGGCGGTGGCGGTAGTGGGGGAGGCGG
TTCTGGCGGGGAGGGTCCGGCGGTGGAGGATCACAGGTACATTTGAAGGAATCTGGCCCCGGCTTGTTCAGCCAGGACAGACCC
TTAGCCTCACCTGTGCCTTCAGTGGTTTTCTCTTAGCACTAGCGGTATGGGGTGGCTGGATTCCGGCAGCCTCCCGGCAAGGT
CTTGAGTGGTGGCTCACATTTGGTGGGACGACGACAAACGGTATAATCCTGCCTTGAAAAGTCGGCTGACCATTAGTAAGGATAC
CTCAAAAAATCAAGTGTACTTGCAATGAATAGCCTTGACGCCGAGGATACGGCTGTATATTATTGCGCGCGGATGGAAGTCTGGT
CTTACTACTTTTATTTATTTTGGGGGAGGGGACTCTCGTCACGGTCTCGAGCGGCGGTGGAGGGTCCGGCGGTGGTGCATCAGCGTC
GTGATGACCCAGTCTCCTTCCACCCTGTCTGCATCTGTAGGAGACAGAGTACCATCAATTGCCAAGCCAGTGAGAGCATTAGCAG
TTGGTTAGCCTGGTATCAGAGAAACAGGGAAGCCCCAAGCTCCTGATCTATGAAGCATCCAACTGGCATCTGGGTCCCAT
CAAGGTTACAGCGGCGAGTGGATCTGGGACAGAATTCACCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGCAACTTATTACTGC
AAGGCTACTTTTATTTTATTTAGTCTGTAATTTTCTCGCGGAGGGACCAAGGTGGAGATGGAAGTCCGGCGGTGGTGCATCAGCGTC
ACCATCTGTCTTCTATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTTGTGTGCCTGTGAATAACTTCTATC
CCAGAGAGGCCAAAGTACAGTGAAGGTGGATAACGCCCTCCAATCGGGTAACCTCCAGGAGAGTGTACAGAGCAGGACAGCAAG
GACAGCACCTACAGCCTCAGCAGCACCCCTGACGCTGAGCAAAGCAGACTACGAGAAACAAAGTCTACGCCTGCGAAGTCACCCA
TCAGGCTCAGTTCGCCGCTCACAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGACAAAACCTCACATGATCCCGACCTGCCAG
CACCTGAAGCCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACACCCCTCATGATCTCCCGGACCCCTGAGGTC
ACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAA
GACAAAGCCGCGGGGAGGAGCAGTACAACAGCAGTACCGTGTGGTCAGCGTCTCACCCTCCTGCACAGGACTGGCTGAATGGCA
AGGATACAAGTGGCGGCTCTCAACAAAGCCCTCCAGCCCCCATCGAGAAAACCATCTCCAAGCCAAAGGGCAGCCCCGAGAA
CCACAGGTGTACACCTGCCCCCAAGCCGGGATGAGCTGACCAAGAACCAGGTGAGCCTGTGGTGCCTGGTCAAAGGCTTCTATCC
CAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCGAGCCGAGAACAACTACAAGACCAGCCCTCCCGTGTGACTCCGACGCGT
CCTTCTTCTCTATAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGCTCTTCTCATGCTCCGTGATGCATGAGGCT
CTGCCACAACAGATTACGCGAGAAGAGCCTCTCCCTGTCTCCGGGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCCGACATTGAGAT
GACACAGTCACCGTCTACGCTCTCAGCCTCAGTAGGCGATAGGGTGACTATCACCTGCCAAGCCTCCCAATCTATAAGTTACACC
TCAACTGGTATCAACAGAAACCCGGTAAAGCACCAGCTGCTCATCTACAAGGCATCAACTCTGCGCTCAGGTGTGCCTAGTCGC
TTCTCCGGGAGCGGCTCCGGTACTGAGTTTACTTTGACGATATCTTCCCTCCAACCCGACGACTTCGCCACATACTATTGTGACGA
GGGTTATAGTTGGGGAATGTTGACAATGTGTTTGGAGGGGGAACGAAAGTGACTGTGTTGGGAGGGGAGGAAAGTGGCGCGCGG
GAAGCGGAGGTGGTGGCTCCGGCGGGGGTGAAGCGAAGTGCAATTGCTCGAAAGTGGTGGCGGACTTGTGCAACCTGGTGAAGC
CTCTCACTCTCTTGGCGCGGAGTGGTTTTAGCTTCAGTAGCGGCTACGATATGTGCTGGGTAAAGCAGGCTCCTGGTAAAGGCT
TGAGTGGATTGCGTGTATCGCGCGCGGCTGCTGGTATAACATACGATGCAAACTGGGCGAAAGGGCGCTTCACAATCTCCAGGG
ACAACCTCAAAAAATACATTTACCTCCAGATGAATAGCTGAGAGCCGGAAGACCCGAGTCTACTATTGCGCAAGGTGAGCATTT
AGCTTCGATTATGCAATGGATCTTTGGGGCCAGGGGACGCTCGTCACCGTCTCATCTTGA

>Sequence ID 133: SI-76PM1 Chain A Amino Acid Sequence

QIVLSQSPAILASAPGEKVTMTCRASSSVSYIHWFOQKPGSSPKPWIYATSNLASGVPVRFSGSGSGTSYSLTISRVEAEDAATYY
CQOWTSNPTFFGGGKLTVLGGGSGGGSGGGSGGGSGGGSGVQLQPPGAELVKPGASVKMSCKASGYTFSTYNMHWVKQTPGRGLE
WIGAIYPNGDTSYNQKFKGKATLTADKSSSTAYMQLSLTSEDSAVYYCARSTYYGGDWYFNVWAGTFTVTVSSGGGSGGGGSE
VQLVESGGGLVQPGGSLRLSCAASGFTITSNAMSWVRQAPGKLEWIGVITGRDITYYASWAKGRFTISRDNKNTLYLQMNLSRA
EDTAVYYCARDGSSAITSNNIWQGLTVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTF
PAVLQSSGLYSLSSVTVPSSSLGTQTYICNVNHKPSNTKVDKRVKPSKCDKHTCPPCPAPEAAGGSPVFLFPPKPKDTLMISRT
PEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQ
PREPQVYTLPPSRDELTKNQVSLSCAVKGFYPDSIAVEWESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFSVM
HEALHNHYTQKLSLSLPGGGGSGGGGSDVMTQSPSSVSASVGRVITICQASQNIIRTYLSWYQQKPKAPKLLIYAAANLASGV
PSRFSGSGSGTDFLTITISDLEPGDAATYYCQSTYLGTDYVGGAFGGGKLTVLGGGSGGGSGGGSGGGSGGGSEVQLVESGGGLVQ
PGGSLRLSCTASGFTISSYHMQWVRQAPGKLEWIGTISSGGNVYASSARGRFTISRPSKNTVDLQMNLSRAEDTAVYYCARDS
GYSDDPMWQGLTVTVSS

>Sequence ID 134: SI-76PM1 Chain A Nucleotide Sequence

CAGATCGTGCTGAGCCAGAGCCCCGCATCCTGAGCGCCAGCCCCGGCGAGAAAGGTGACCATGACCTGCCGGGCCAGCAGCAGCGT
GAGCTACATCCACTGGTTCAGCAGAAGCCCGGCAGCAGCCCCAAGCCCTGGATCTACGCCACCAGCAACCTGGCCAGCGGCGTGC
CCGTGCGGTTACAGCGGCGAGCGGCAGCGGCACCAAGCTACAGCCTGACCATCAGCCGGGTGGAGGCCGAGGACCGCCACCTACTAC
TGCCAGCAGTGGACAGCAACCCCCCACTTCGGCGGGCGGCACCAAGCTGACCGTGTGGGCGGTGGCGGTAGTGGGGAGGCGG
TTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCACAGGTGCAGTGCAGCAGCCCCGGCGCGGAGCTGGTGAAGCCCGCGCCAGCG

>Sequence ID 135: SI-76PM1 Chain B Amino Acid Sequence

>Sequence ID 136: SI-76PM1 Chain B Nucleotide Sequence

GAAAATGTATTGACACAGAGCCCCGCCTCCCTCAGTGCCTCACCTGGGGAAAGGGTAACATCACTTGCTCTGCATCAAGCAGCGT
CTCATACATGCATTGGTATCAACAAAAGCCTGGACAGGCCCCAAGCTCTGGATATACGATACGAGCAAGCTGGCTTCGCGCGTAC
CTAGCGCGCTCAGTGGTTCCGCGCTCAGGCAACGATCACACCTTACGATTTCCAGTATGGAAACCCGAAGATTTTGCAACTTATTA
TGTTTTCCAGGGGAGCGTGTAACCCATTCACTTTCCGGGAGGGGACAAAGTACCGCTCCTAGGCGGTGGCGGTAGTGGGGAGCGCG
TTCTGGCGGCGGAGGGTCCGCGCGGTGGAGGATCACAGGTACACTGAAGGAATCTGGCCCGCGCTTGTTACGCCAGGACAGACCC
TTAGCCTCAGCTGTGCCTTCAGTGGTTTTCTCTTAGCATTAGCGGTTATGGGGGTCGCGTGGATTTCGGCAGCCTCCCGCCAAAGGT
CTTGAGTGGTTGGCTCACATTTGGTGGGAGCAGCAAAACGGTATAATCTCGCTTGAAGATCGGCTGACCATTAGTAAGGATAC
CTCAAAAAATCAAGTGTACTTGGCAATGAATAGCTTTCAGCCCGAGATACGGCTGTATATTATTGCGCGCGATGGAACTCTGGT
CTTACTACTTTGATTATTGGGGCAGGGAACTCTCGTCACGGTCTCGAGCGGCGGTGGAGGGTCCGCGCGGTGGTGGATCAGACGTC
GTGATGACCCAGTCTCCTCCACCCTGTCTGCATCTGTAGGAGACAGATACCATTCAATTGCCAAGCCAGTGAGAGCATTAGCAG
TTGGTTAGCCTGGTATCAGCAGAAACACGGGAAAGCCCTAAGCTCTGATCTATGAAGATCCAAACTGGCATCTGGGGTCCCAT
CAAGGTTACGGGCGAGTGGAATCTGGGACGAATTCACTCTCACCATTACGAGCCTGCAGCCTGATGATTTTGCAACTTATTACTGC
CAAGGCTATTTTTATTTTATTAGTCGTACTTATGTAAATTTCTTTCGGCTGTGGGACCAAGGTGGAGATCAAACGTACGGTGGCTGC
ACCATTGTCTTTCATCTTCCGCGCATCTGATGAGCAGTTGAATCTGGAACCTGCCTCTGTTGTGTGCTGCTGATAACTCTTTCAT
CCAGAGAGGCCCAAAGTACAGTCGGAAGGTGGATAACGCCCTCCAATCGGGTAACCTCCCAGGTGTTCACAGAGCAGGACAGCAAG
GACAGCAGCTACAGCCTCAGAGCAGCCTGAGCTGAGCAAAAGCAGATACGAGAAACAAAGTCTACGCCTGCGAAGTCACCC

TCAGGGCCTGAGCTCGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGACAAAACCTCACACATGCCACCCTGCCAG
CACCTGAAGCCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCCAAAGGACACCTCATGATCTCCCGGACCCCTGAGGTC
ACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAA
GACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCCTACCGTCCCTGCACCAGGACTGGCTGAATGGCA
AGGAGTACAAGTGCCGCGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCAAAGCCAAAGGGCAGCCCCGAGAA
CCACAGGTGTACACCTGCCCCCAAGCCGGGATGAGCTGACCAAGAACAGGTGAGCCGTGTGGTGCCTGGTCAAAGGCTTCTATCC
CAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACACTACAAGACCACGCCCTCCCGTGGACTCCGACGGCT
CCTTCTTCTCTATAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCT
CTGCACAACAGATTACGCAGAAGAGCCTCTCCCTGTCTCCGGGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCCGACATTCAGAT
GACACAGTCACCGTCTACGCTCTCAGCCTCAGTAGGCGATAGGGTGACTATCACCTGCCAAGCCTCCCAATCTATAAGTTCACACC
TCAACTGGTATCAACAGAAACCCGGTAAAGCACCGAAGCTGCTCATCTACAAGGCATCAACTCTTGCCCTCAGGTGTGCCTAGTCGC
TTCTCCGGGAGCGGCTCCGGTACTGAGTTTACTTTGACGATATCTTCCCTCCAACCCGACGACTTCGCCACATACTATTGTGACGA
GGGTATAGTTGGGAAATGTTGACAATGTGTTTGGAGGGGGAACGAAAGTGACTGTGTGGGAGGGGGAGGAAGTGGCGGCGGCG
GAAGCGGAGGTGGTGGCTCCGGCGGGGGTGAAGCGAAGTGCAATTGCTCGAAAGTGGTGGCGGACTTGTGCAACCTGGTGAAGC
CTCTCACTCTCTTGGCGGGGAGTGGTTTTAGCTTCAGTAGCGGTACGATATGTGCTGGGTAAAGACAGGCTCCTGGTAAAGGCT
TGAGTGGATTGCGTGTATCGCGCGGGGTCTGCTGGTATAACATACGATGCAAACTGGGCGAAAGGGCGCTTCACAATCTCCAGGG
ACAACTCAAAAATACATTGTACCTCCAGATGAATAGCCTGAGAGCCGAAGACACCGCAGTCTACTATTGCGCAAGGTGAGCATTT
AGCTTCGATTATGCAATGGATCTTTGGGGCCAGGGGACGCTCGTCACCGTCTCATCTTGA

>Sequence ID 137: SI-68X2 Chain A Amino Acid Sequence

DIQMTQSPSSLSASVGRVTITCQASQDISNYLNWYQQKPKAPKLLIYDASNLETGVPSRFSGSGSGTDFTFTISSLPEDIATY
FCQHFDFHPLAFGCGTKVEIKGGGSGGGGSGGGGSGGGGSGQVQLQESGPGLVKPSSETLSLTCTVSGGVSSTGGYYWTWIRQSPGK
CLEWIGHIYYSGNTNYPNPLKSRITISIDTSKTFSLKLSVTAADTAIYYCVRDRVTGAFDIWQGTMTVSTGGGSGGGGSEV
QLVESGGGLVQPGGSLRLSCAASGFTISTNAMSIVRQAPGKLEWIGVITGRDIYYASWAKGRFTISRDNKNTLYLQMNSLRAE
DTAVYYCARDGGSSAITSNNIWGGTGLVTVSSASTKGPSVFPLAPSSKSTSGGTAAALGLVKDYFPEPTVSWNSGALTSVGHVTFP
AVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHKPSNTKVDKRVFPKSCDKHTHTCPCPAPEAAGGPSVFLFPPKPKDTLMI SRTF
EVTCTVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQP
REPQVCTLPFSRDELTKNQVSLSCAVKGFYPDSIAVEWESNGQPENNYKTPPVLDSDGSFFLVSKLTVDKSRWQQGNVFSVCSVMH
EALHNHYTQKSLSLSPGK

>Sequence ID 138: SI-68X2 Chain A Nucleotide Sequence

GACATCCAGATGACCCAGTCTCCATCCTCCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCACTTGCCAGGCGAGTCAGGACAT
CAGCAACTATTTAAATTGGTATCAGCAGAAACAGGGAAGCCCTAAACTCCTGATCTACGATGCATCCAATTGGAAACAGGGG
TCCCATCAAGGTTCAAGTGAAGTGGATCTGGGACAGATTTTACTTTACCATCAGCAGCCTGCAGCCTGAAGATATTGCAACATAT
TTCTGTCAACACTTTGATCATCTCCCGCTCGCTTTCGGCTGTGGGACCAAGGTGGAAATTAAGGCGGTGGCGGTAGTGGGGGAGG
CGGTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCAGAGTGCAGCTGCAGGAGTCGGGCCCAGGACTGGTGAAGCCTTCGGAGA
CCCTGTCCCTCACCTGCATGTCTCTGGTGGCTCCGTGAGCAGTGGTGATTACTACTGGACCTGGATCCGGCAGTCCCAGGGAAG
TGCCTGGAGTGGATTGGACACATCTATTACAGTGGGAACACCAATTATAACCCCTCCCTCAAGAGCCGACTCACCATATCAATTGA
CAGTCCAAGACTCAGTTCTCCCTGAAGCTGAGTTCTGTGACCGCTGCGGACACGGCCATTTATTACTGTGTGCGAGATCAGTGA
CTGGTGCTTTTATATCTGGGGCCAAGGGACAATGGTCACCGTGTGACAGGCGGTGGAGGGTCCGGCGGTGGTGGATCAGAGGTG
CAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCATCAGTAC
CAATGCAATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGCTGGAGTGGATCGGAGTCATTACTGGTCTGATATCACATACTACG
CGAGCTGGGCGAAAGGCAGATTACCATCTCCAGAGACAATCCAAGAACACGCTGTATCTTCAAATGAACAGCCTGAGAGCCGAG
GACACGGCTGTGTATTACTGTGCGAGAGACGGTGGTTCTTCTGCTATTACTAGTAACAACATTTGGGGCCAGGGAACCTGGTGC
CGTGTCTCAGCTAGCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGG
GCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTGCTGGAAGTCAAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCG
GCTGTCTACAGTCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCTCCAGCAGCTTGGGCACCCAGACCTTACATCTG
CAACGTGAATCACAAGCCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAATCTTGTGACAAAACCTCACACATGCCACCCT
GCCCAGCACCTGAAGCCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCCAAAGGACACCCCTCATGATCTCCGGACCCCT
GAGGTACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAA
TGCCAAGACAAAGCCGCGGGAGGAGCAGTACGCCAGCACGTACCGTGTGGTGCAGCTCCTCACCGTCTGCACCAGGACTGGCTGA
ATGGCAAGGAGTACAAGTGCAGCGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAGCCAAAGGGCAGCCC
CGAGAACCACAGGTGTGTACCCTGCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTGAGCCTGTCTGCGCCGTCAAAGGCTT
CTATCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCTCCCGTGTCTGGACTCCG
ACGGCTCCTTCTCTCGTGAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCAT
GAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATAG

QSAQTQPASVSGSPGQSITI SCTGTS SDVGGYNFVSWYQQHPGKAPKLM IYDVSDRPSGVSDRFSGSKSGNTASLI ISGLQADDEA
DYCYSSYGSSTHVI FCGTKVTVLGGGSGGGGSGGGGSGGGGSGVQLQESGGGLVKPGGSLRLSCAASGFTFSSYWMSWVRQAP
GKCLEWVANNINRDSASYYVDVSKGRFTISRDDAKNSLYLQMNSLRAEDTAVYICARDRGVGYFDLWGRGTLTVTSTGGGSGGGG
SDVMVTQSPSTLSASVGDVRTINCQASESISWLAWYQKPKGAPKLLIYEASKLASGVSRFSGSGSGTEFTLTISLQPDFDAT
YYCYGYFYFISRTYVNSFGGGTKVEIKRTVAAPSVFIFPSPDEQLKSGTASVVCLLNVPFYPREAKVQWVDNALQSGNSQESVTEQ
DSKDYSLSTLTLSKADYEKKHYACEVTHQGLSPVTKSFNRGECGGDKTHTCPPCPAPEAAGGSPVLFPPKPKD LMI SRT
PEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQ
PREPQVYTLPPCRDELTKNQVSLWCLVKGYFSPDAIWEWESNGQPENNYTKTTPPVLDSGSGFFLYSKLTVDKSRWQQGNVFCSSVM
HEALTHNNYTOKSLSLSPGK

CAGTCTGCCCTGACTCAGCCTGCCTCCGTGTCTGGGTCTCCTGGACAGTCGATCACCATCTCCTGCACTGGAAC CAGCAGTACGCT
TGGTGGTTATAACTTTGTCTCCTGGTACCAACAACCCAGCGCAAAGCCCCAAACTCATGATCTATGATGTAGTACGTACGCGCCCT
CAGGGTGTCTGTGATCGCTTCTCCGGCTCCAACTTGCCACACCGGCTCCCTGATCATCTCTGGCCTCCAGGCTGACGACGAGGCT
GATTATTACTCGAGCTCATATGGGAGCAGCAGCACTCATGTGATTTTCGGCTGTGGGACCAAGGTGACGCTCTAGCGCGTGGCGG
TAGTGGGGGAGGCGGTTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCACAGGTGCAATTGCAGGAGTGGGGGGAGGCGCTGGTCA
AGCCTGGAGGGTCCCTGAGACTCTCTGTGCAAGCTCTGGATTACCTTTAGTAGTTATTGGATGAGCTGGGTCCGCGAGGCTCCA
GGGAAGTGCCTGGAGTGGGTGGCCAACTAAACCCGATGGAAGTGGAGTTACTATGTGGACTCTGTGAAGGGCGATTACCATT
CTCCAGAGACGACGCCAAGAACTCACTGTATCTGCAAATGAACAGCCTGAGAGCTGAGGACACGCGCTGTGTATTACTGTGCGAGAG
ATCGTGGGGTGGGCTACTTCGATCTCTGGGGCGTGGCACCCTTGGTCACCGTGTGACAGCGGCGGTGGAGGGTCCGGCGGTGGTGG
TCAGACGCTCGTGTAGCTACCCAGTCTCTCTCCACCTGTCTGATCATCTGTAGGAGACAGAGTACCATTCAATTGCCAAGCCGATGAGAG
CATTAGCAGTTTGGTTAGCCTGGTATCAGCAGAAACAGGGAAAGCCCCTAAGCTCCTGATCTATGAAGCATCCAACCTGGCATCTG
GGGTCCCATCAAGGTTCAAGCGCAGTGGATCTGGGACAGAATTCACTCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGAACCT
TATTACTGCCAAGGTTATTTTATTTTATTATGCTGATCTATTGTAATTTCTTTCGGGAGGGACCAAGGTGGAGATCAACGTAC
GCTGGGTGCACCATCTGTCTTCACTTCCCGCATCTGATGAGCAGTTGAAATCTGGAACCTGCCTCTGTTGTCTGCTGTGAATA
ACTTCTATCCCAGAGGCGCAAAAGTACAGTGGAAAGGTGGATAACGCCCTCCAATCGGTAACCTCCAGGAGAGTGTACAGAGCAG
GACAGCAAGGACAGCAGCTACAGCCTCAGCAGCAGCCTGACGCTGAGCAAAGCAGACTGACGAGAAACAAGTCTACGCTCCGCA
AGTCACCCATCAGGCGCTGAGCTCGCCCGTCAACAAGGCCCTCCAGAGGGAGAGTGTGGAGGCGCAAAAATCACACATGCCCA
CGTGCCACGACCTGAAGCCGCGGGGGGACGCTCAGTCTTCTCTTCCCCCAAACCAAGACACCTCATGATCTCCCGGACC
CCTGAGGTACATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCA
TAATGCCAAGACAAAGCGCGGGAGGAGCAGTACGCCAGCAGCTACCGTGGTGGTCAAGCTCTCAGCGTCTCAGCGTCTCCGACAGGACTGGC
TGAATGCCAAGGAGTACAAGTGCAGGCTCTCCAAAGAGCCCTCCAGCGCCCTCAGAAACCATCTCCAAAGCCAAAGGGCAG
CCCCGAGAACCAAGTGTACACCTCGCCCATCTCGGGATGAGCTGACCAAGAACCAGGTGAGCTGTGGTGGCTGGTCAAAGG
CTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGCAGCCGAGAACAACTACAAGACACAGCCTCCCGTCTGCTGACT
CCGACGGCTCTTCTTCTCTATAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTTCTCATGCTCCGTGATG
CATGAGGCTCTGCACAAACCTACACGACGAAGAGCCTCTCCTGTCTCCGGGTAAATAG

DIQMTQSPSSLSASVGRVITTCQASQDISNYLWYQKPKGKAPKLLIYDASNLETGVPSRFSGSGSGTDFTFITISLQPEDIATY
FCQHFDHLPFLAFGCGTKVEIKGGGGSGGGGSGGGGSGGGGSGVQLQESGPGLVKPSETLSLTCTVSGGSVSSGDYYWTVIRQSPGK
CLEWIGHIYYSGNTNYPNLSKSLTISIDSKTQFSLKLSVTAADTAIYYCVRDRTGAFDIWGQGTMTVSTVSGGSGGGGSGSEV
QLVESGGGLVQPGGSLRLSCAASGFTISTNAMSVWRQAPGKLEWIGVITGRDIITYASWAKGRTFISRDNSKNTLYLQMNLSRAE
DTAVYYCARDGSSAITSNNIWQGTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFP
AVLQSSGSLGLYSVTVTPSSSLGTQTYICNVNHKPSNTKVDKRVEPKCKDKTTHCPPCPAPEAAGGSVFLFPPFKPKDTLMISRTPE
VTCVVDVDSHEDPEVKFNWYVDGVEVHNAKTKPREEQATSYASTYRVVSVLTVHLQDWNLGEYKCAVSNKALPAPIEKTIKAKGQGP
REPQCVTLPPSRDELTKNQVSLTSCAVKGFPYSDIAVEWESNGQPENNKYTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFSCSVMH
EALHNHYTQKSLSLSPGGGGSGGGGSGRSLVESGGGLVQPGGSLRLSCTASGFTISSYHMQRVQAPGKCLEYIGTISGGNVYYA
SSARGFTISRPSKNTVDLQMNLSRAEDTAVYYCARDSGYSDPMWQGQTLTVTSVSGGGSGGGGSGGGGSGGGGSDVMTQSPSS
VSASVGRVITTCQASQDISNYLWYQKPKGKAPKLLIYAAANLASGVPSRFSGSGSGTDFTLTISLDEPGAATYYCQSTYLGTD
YVGGAGCGTKVEIK

GACATCCAGATGACCCAGTCTCCATCCTCCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCACTTGCCAGGCGAGTCAGGACAT
CAGCAACTATTTAAATTTGGTATCAGCAGAAACACAGGAAAGCCCCATAACTCTGATCATAGATGCATCAAAATTTGGAAACAGGGG
TCCCATCAAGGTTTCAGTGGAGGTGGAATCTGGGACAGGATTTTACTTTCCATCAGCAGCGCTGCAGCTTGAAGATTGGCAACATAT
TTCTGTCAACACTTTGATCATCTCCCCTCGCTTTCGGCTGTGGACCAAGGTGGAATAAAGGCGGTGGCGGTAGTGGGGGAGG
CGGTTCTCGGCGGCGAGGGTCCGGCGGTGGAGGATCAGAGTGCAGTGCAGGAGTCCGGGCGACGAGGATGGTGAAGCTTTCGGA
CCCTGTCCCTCACCCTGCAGTGTCTCTGGTGGTCCGTTGACAGCATGGTGATTACTGAGACTGGATCCGGCAGTCCCCAGGAA

TGCCTGGAGTGGATTGGACACATCTATTACAGTGGGAACACCAATTATAACCCCTCCCTCAAGAGCCGACTCACCATATCAATTGACACGTCCTCAAGACTCAGTTCTCCCTGAAGCTGAGTTCTGTGACCGCTGCGGACACGGCCATTTATTAAGTGTGTGCGAGATCGAGTGA
CTGGTGTCTTTTATATCTGGGGCCAAGGGACAATGGTCACCGGTGTCGACAGGCGGTGGAGGGTCCGGCGGTGGTGGATCAGAGGTG
CAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCATCAGTAC
CAATGCAATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGATCGGAGTCATTACTGGTCTGATATCACATACTACG
CGAGCTGGGCGAAAGGCAGATTACCATCTCCAGAGACAATCCAAAGAACACGCTGTATCTTCAAATGAACAGCCTGAGAGCCGAG
GACACGGCTGTGTATTACTGTGCGAGAGACGGTGGTCTTCTCTGATTACTAGTAACAACATTTGGGGCCAGGGAACCCCTGGTGCAC
CGTGTCTCAGCTAGCATAAGGGCCCATCGGTCTTCCCTGGCACCCCTCCTCCAGAGCACCTCTGGGGGCGACAGCGGCCCTGG
GCTGCCTGGTCAAGGACTAGTTCCCGGAACCGGTGACGGTGTCTGGAACCTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCG
GCTGTCTACAGTCTCAGGACTCTACTCCCTCAGCAGCGTGGTACCGTGGCCCTCCAGCAGCTTGGGCGCCGAGACCTACATCTG
CAACGTGAATCAACAGCCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAATCTTGTGACAAAACCTCACACATGCCCACCGT
GCCCAGCACCTGAAGCCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACACCCCTCATGATCTCCGGGACCCCT
GAGGTACATGCGTGGTGGTGGACGTGAGCCACGAGACCTGAGGTCAAGTTCAACTGGTACGTGGAGCGCGTGGAGGTGCATAA
TGCCAAAGACAAAGCCGCGGGGAGGAGCAGTACGCCAGCACGTACCGTGTGGTTCAGCGTCTCACCCTCTGCACCCAGGACTGGCTGA
ATGGCAAGGAGTACAAGTCTGCGCGGTCTCCAACAAGCCCTCCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGCGAGCCC
CGAGAACCCAGGTGTGTACCTGCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTGAGCCTGTCTGCGCGCTCAAAGGCTT
CTATCCAGCGACATCGCGGTGGAGTGGGAGAGCAATGGGCGAGCGGAGAACAACTACAGACACGCTCCCGTGTCTGGAGTCCG
ACGGCTCCTTCTCTCTGAGCAAGCTCACCCTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCAT
CAGGCTCTGCACAAACCATCAGCAGAGAGCCTCTCCGTGTCTCCGGGTGGCGGTGGAGGGTCCGGCGGTGGTGGTGGTGGTGGT
GCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGTCCCTGAGACTCTCCTGTACTGCCTCTGGATTACCATCAGTAGCT
ACCACATGCAGTGGTCCGGCAGGACCTGGGAAGTGCCTGGAGTACATCGGAACCATTAGTAGTGGTGGTAATGTATACTACGCA
AGCTCCGCTAGAGGCGAGTTACCATCTCCAGACCTCTGTCAGAACACGGTGGATCTTCAAATGAACAGCCTGAGAGCCGAGGA
SDVMTQSPSTLSASVGDRTINQASEISWLAHYQKPGKAPKLLIYEASKLASGVPSTRFSGSGSGTEFTLTISLQPDFFAT
YYCQGYFYFISRTYVNSFGGGTKEIKRTVAAPSVFIFPPSDEQLKSGTASVVCCLNNFYPREAKVQWKVDNALQSGNSQESVTEQ
DSKSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSPVTKSFNRGECGGDKHTCPCPPAPEAAGGVSFVLFPPKPKDTLMISRT
PEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDLNKGKEYKCAVSNKALPAPIEKTIKAKGQ
PREPQVYTLPPCRDELTKNQVSLWLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFSQSV
HEALHNHYTQKLSLSLSPGK

>Sequence ID 143: SI-68E1 Chain B Amino Acid Sequence

QSALTQPASVSGSPGQSITISCTGTSSDVGGYNFVSWYQQHPGKAPKLMYIDVSDRPSGVSDRFSGSKSGNTASLIISGLQADDEA
DYVCSYSSSTHVIIFGCGTKVTVLGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGG
GKCLEWVANINRDSASYVDSVKGRFTISRDDAKNSLYLQMNLSRAEDTAVVYCARDRGVGYFDLWGRGTLTVSTVSTGGGGSGGGG
SDVMTQSPSTLSASVGDRTINQASEISWLAHYQKPGKAPKLLIYEASKLASGVPSTRFSGSGSGTEFTLTISLQPDFFAT
YYCQGYFYFISRTYVNSFGGGTKEIKRTVAAPSVFIFPPSDEQLKSGTASVVCCLNNFYPREAKVQWKVDNALQSGNSQESVTEQ
DSKSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSPVTKSFNRGECGGDKHTCPCPPAPEAAGGVSFVLFPPKPKDTLMISRT
PEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDLNKGKEYKCAVSNKALPAPIEKTIKAKGQ
PREPQVYTLPPCRDELTKNQVSLWLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFSQSV
HEALHNHYTQKLSLSLSPGK

>Sequence ID 144: SI-68E1 Chain B Nucleotide Sequence

CAGTCTGCCCTGACTCAGCCTGCCTCGTGTCTGGGTCTCCTGGACAGTCGATCACCATCTCCTGCACTGGAACCAGCAGTGACGT
TGGTGGTTATACTTTGTCTCCTGGTACCAACAACCCAGGCAAGGCCCAAACTCATGATCTATGATGTGAGTGATCGGCCCT
CAGGGGTGTCTGATCGCTCTCCGGCTCCAAGTCTGGCAACAGGCCCTCCCTGATCATCTCTGGCCTCCAGGCTGACGACGAGGCT
GATTATTAAGTGCAGCTCATATGGGAGCAGCAGCACTCATGTGATTTCGGCTGTGGGACCAAGGTGACCGTCCCTAGCGGTGGCGG
TAGTGGGGGAGGCGGTCTTGGCGGCGGAGGGTCCGGCGGTGGAGGATCAGAGTCAATTCAGGAGTCCGGGGGAGGCGCTGGTCA
AGCCTGGAGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCTTTAGTAGTTATTGGATGAGCTGGGTCCGCCAGGCTCCA
GGGAAGTGCCTGGAGTGGGTGGCCAACATAAACCCGATGGAAGTCCGAGTTACTATGTGACTCTGTGAAGGGCCGATTACCAT
CTCCAGAGACGACGCCAAGAACTCACTGTATCTGCAAAATGAACAGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAG
ATCGTGGGGTGGGCTACTTCGATCTCTGGGGCGGTGGCACCCCTGGTCACCGTGTGACAGGCGGTGGAGGGTCCGGCGGTGGTGA
TCAGACGTCTGATGACCCAGTCTCCTTCCACCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCAATTGCCAAGCCAGTGAGAG
CATTAGCAGTGTGGTTAGCCTGGTATCAGCAGAAACCAGGGAAGGCCCTTAAGCTCCTGATCTATGAAGCATCAAACCTGGCATCTG
GGGTCCCATCAAGGTTACGCGCAGTGGATCTGGGACAGAATTCACTCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGAACT
TATTACTGCCAAGGCTATTTTATTTATTTAGTCTACTTATGTAAATCTTTCGGCGGAGGGACCAAGGTGGAGATCAAACGTAC
GGTGGCTGCACCATCTGTCTTCTTCTCCCGCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTGTGTGCTGCTGAATA
ACTTCTATCCAGAGAGGGCCAAAGTACAGTGAAGGTGGATAACGCCCTCCAATCGGGTAACTCCAGGAGAGTGTCAAGAGCAG
GACAGCAAGGACAGCACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAGCAGACTACGAGAAACACAAAGTCTACGCTGCGA
AGTACCCATCAGGGCCTGAGCTCGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGACAAACTCACACATGCCAC
CGTGGCCAGCACCTGAAGCCGCGGGGGGACCGTCACTCTTCTTCCCCCAAAACCAAGGACACCCCTCATGATCTCCCGGACC
CCTGAGGTCACATGGGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGAGCGGTGAGGTGCA
TAATGCCAAGACAAAGCCGCGGGGAGGAGCAGTACGCCAGCACGTACCGTGTGGTTCAGCGTCTCACCCTCTGCACCCAGGACTGGC

TGAATGGCAAGGAGTACAAGTGC GCGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAG
CCCCGAGAACACAGGTGTACACCTGCCCCATGTCCGGATGAGCTGACCAAGAACCAGGTGAGCCTGTGGTGCTGTCAAAGG
CTTCTATCCAGCAGCATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGTGGACT
CCGACGGCTCCTTCTTCTCTATAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATG
CATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATAG

>Sequence ID 145: SI-68E2 Chain A Amino Acid Sequence

DIQMTQSPSSLSASVGRVITTCQASQDISNYLNWYQQKPKGKAPKLLIYDASNLETGVPSRFSGSGSGDFTFTISSLPEDIATY
FCQHFHDLPLAFGCGTKVEIKGGGSGGGGSGGGGSGGGGSGVQLQESGPGLVKPSSETLSLTCTVSGGSVSSGDYYWTVIRQSPGK
CLEWIGHIYYSGNTNYPNPSLKSRLTISIDTSKTQFSLKLSVTAADTAIYYCVRDRVTGAFDIWQGTMVTVSTGGGGSGGGGSEV
QLVESGGGLVQPGGSLRLSCAASGFTISTNAMSWVRQAPGKGLEWIGVITGRDITYYASWAKGRFTISRDNSKNTLYLQMNSLRAE
DTAVYYCARDGSSAITSNNIWGGTGLVTVSSASTKGPSVFPLPSSKSTSGGTAAALGLVKDYFPEPVTVSWNSGALTSGVHTFP
AVLQSSGLYSLSVTVTPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCKDHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPE
VTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPR
EPQVCTLPPSRDELTKNQVSLSCAVKGFPYSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLVSKLTVDKSRWQQGNVFSQSVMH
EALHNHYTQKLSLSLSPGK

>Sequence ID 146: SI-68E2 Chain A Nucleotide Sequence

GACATCCAGATGACCCAGTCTCCATCCTCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCACTTGCCAGGCGAGTCAGGACAT
CAGCAACTATTTAAATTGGTATCAGCAGAAACCAGGGAAAGCCCTAAACTCCTGATCTACGATGCATCCAATTTGGAAACAGGGG
TCCCATCAAGGTTCCAGTGGAGTGGATCTGGGACAGATTTTACTTTTACCATCAGCAGCCTGCAGCCTGAAGATATTGCAACATAT
TTCTGTCAACACTTTGATCATCTCCCGCTCGCTTTCGGCTGTGGGACCAAGGTGGAAATTAAGGCGGTGGCGGTAGTGGGGGAGG
CGGTTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCACAGGTGCAGCTGCAGGAGTCGGGCCCAGGACTGGTGAAGCCTTCGGAGA
CCCTGTCCCTCACCTGCATGTCTCTGGTGGCTCCGTGACAGTGGTGATTACTACTGGACCTGGATCCGGCAGTCCCCAGGGAAG
TGCCCTGGAGTGGATGGACACATCTATTACAGTGGGAACCAATTATAACCCCTCCCTCAAGAGCCGACTCACCATATCAATTGA
CACGTCCAAGACTCAGTTCTCCCTGAAGCTGAGTTCTGTGACCGCTGCGGACACGGCCATTTATTACTGTGTGCGAGATCGAGTGA
CTGGTGCTTTTGATATCTGGGGCCAAAGGACAATGGTCACCGTGTGCACAGGCGGTGGAGGGTCCGGCGGTGGTGGATCAGAGGTG
CAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCAACATCAGTAC
CAATGCAATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGATCGGAGTCATTACTGGTCTGATATCACATACTACG
CGAGCTGGGCGAAAGGCAGATTCAACATCTCCAGAGACAATCCAAGAACACGCTGTATCTTCAAATGAACAGCCTGAGAGCCGAG
GACACGGCTGTGTATTACTGTGCGAGAGACGGTGGTCTCTCTGCTATTACTAGTAACAACATTTGGGGCCAGGGAACCTGGTGCAC
CGTGTCTCAGCTAGCACCAAGGGCCCATCGGTCTTCCCTGGCACCCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGG
GCTGCTGGTCAAGGACTACTTCCCGAACCCTGACGGTGTCTGGTGAACCTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCG
GCTGTCTTACAGTCTCAGGACTTACTCCCTCAGCAGCGTGGTGACCGTGGCTCCAGCAGCTTGGGCACCCAGACCTACATCTG
CAACGTGAATCACAGCCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAATCTTGTGACAAAACCTCACACATGCCACCGT
GCCCCAGCACCTGAAGCCGCGGGGGGACCGTCACTCTTCTTCCCCCAAAACCAAGGACACCTCATGATCTCCCGGACCCCT
GAGGTCAATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGAGCGGTGGAGGTGCATAA
TGCCAAGACAAAGCCGCGGGAGGAGCAGTACGCCAGCACGTACCGTGTGGTCAAGCTCCTCACCCTCTGCACCAGGACTGGCTGA
ATGGCAAGGAGTACAGTGGCGGTCTCCAACAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAGCCAAAGGGCAGGCC
CGAGAACCACAGGTGTGTACCCTGCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTGAGCTGTCTGCGCCGTCAAAGGCTT
CTATCCCAGCGACATCGCGGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACCTACAAGACCACGCCTCCCGTGTGGACTCCG
ACGGCTCCTTCTTCTCTGAGCAAGCTCACCCTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCAT
GAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATAG

>Sequence ID 147: SI-68E2 Chain B Amino Acid Sequence

QSALTQPASVSGSPGQSITISCTGTSSDVGGYNFVSWYQQHPGKAPKLMYDVS DRPSGVSDRFSGSGSGNTASLIISGLQADDEA
DYYCYSYSSSTHVI FGCCTKVTVLGGGSGGGGSGGGGSGGGGSGVQLQESGGGLVKPGGSLRLSCAASGFTFSSYWMSWVRQAP
GKCLEWVANINRDGSASYVDSVKGRTISRDDAKNSLYLQMNSLRAEDTAVYYCARDRGVGYFDLWGRGTLTVTVSTGGGGSGGGG
SDVVMTQSPSTLSASVGRVITNCQASESISSWLAWYQQKPKGKAPKLLIYEASKLASGVPSRFSGSGSGTEFTLTISSLPDDFAT
YYCQGYFYFISRTYVNSFGGGTKEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQ
DSKSTYLSLSLTLSKADYEKKHYACEVTHQGLSPVTKSFNRGECGGDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPE
VTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPR
PREPQVYTLPPCRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSQSVH
HEALHNHYTQKLSLSLPGGGGSGGGGSEVQLLESGGGLVQPGGSLRLSCAASGFTFSSYDMCMWVRQAPGKCLEWIIACIAAGSAG
ITYDANWAKGRFTISRDNKNTLYLQMNSLRAEDTAVYYCARSAFSDYAMD LWGQGLTVTVSSGGGGSGGGGSGGGGSGGGGSDI
QMTQSPSTLSASVGRVITTCQASQSISSHLNWKYQQKPKGKAPKLLIYKASTLASGVPSRFSGSGSGTEFTLTISSLPDDFATYYC
QQGYSWGNVDNVFGCGTKVEIK

>Sequence ID 148: SI-68E2 Chain B Nucleotide Sequence

GACATCCAGATGACCCAGTCTCCATCCTCCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCACTTGCCAGGCGAGTCAGGACAT
CAGCAACTATTTTAAATTTGGTATCAGACAGAAACCAGGGAAGGCCCTAAACTCTGATCATCAGATGCATCAAATTTGGAACACAGGGG
TCCCATCAAGGTTTCAGTGAAGTGGATCTGGGACAGATTTTACTTCCACCATGACAGCCTGCAGCCTGAAGATATTGCAACATA
TTCTGTCAACACTTTTGATCATCTCCGCTCGCTTTCGCGTGTGGGACCAAGGTGAAATTAAGCGCGTGGCGGTAGTGGGGGAGG
CGGTTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCACAGGTGCAGCTGCAGGAGTCGGGCCAGGACTGGTGAAGCCTTCGGAGA
CCCTGTCCCTCACTCTGCTCTCGTGGTGGTCCGTGACAGATGGTGATTACTACTGAGCTGGATCCGGCAGTCCCCAGGGAAG
TGCGTGAGAGTGATTGACACATCTATTACAGTGGGAACACCAATTAACCCCTCCCTCAAGAGCGGACATCACCATACTAAATTA
CACGTCCAAGACTCAGTTCTCCCTGAAGCTGAGTTCGTGACCGCTGCGGACACGGCCATTTATTACTGTGTGCGAGATCAGTGA
CTGGTGGCTTTTGATATCTGGGGCCAAAGGACAAATGGTCAACCGTGTCCAGAGCGGGTGAGGGGTCCGGCGGGTGGTGGATCAGAGGTG
CAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCTGGGGGGTCCCTGAGAGCTCTCTGTGACGCTCTGGATTCACCATCAGTAC
CAATGCAATGAGCTGGGTCCGCGAGGCTCCAGGGGAAGGGGGTGGAGTGGATCGGAGTCACTTCTGGTGTGATACACATACAC

CGAGCTGGGCGAAAGGCAGATTACCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTTCAAATGAACAGCCTGAGAGCCGAG
GACACGGCTGTGTATTACTGTGCGAGAGACGGTGGTCTTCTGCTATTACTAGTAACAACATTTGGGGCCAGGGAACCTGGTAC
CGTGTCTCTCAGCTAGCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTCTCTCAAGAGCACCTCTGGGGGCACAGCGGCCCTGG
GCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCTGGAACTCAGGCGCCCTGACCAGCGCGTGCACACCTTCCCG
GCTGTCTACAGTCTCTCAGGACTTACTCCCTCAGCAGCGTGGTGACCTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTG
CAACGTGAATCACAGCCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAAATCTTGTGACAAAATCACACATGCCACCGT
GCCCCAGCTGAAGCCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAACCAAGGACACCTCATGATCTCCCCGACCCCT
GAGGTCACATGCGTGGTGGTGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGAGCGCGTGGAGGTGCATAA
TGCCAAAGACAAAGCGCGGGAGGAGCAGTACGCCAGCAGCTACCGTGTGGTCAGCGTCTCACCCTCTGCACCAGGACTGGCTGA
ATGGCAAGGAGTACAAGTGGCGGTCTCCAAACAAGCCCTCCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGCGAGCCC
CGAGAACCCACAGGTGTGTACCCTGCCCCCATCCCGGATGAGCTGACCAAGAACAGGTGAGCTGTCTGCGCCGTCAAAGGCTT
CTATCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGACGCGGAGAACAACCTACAAGACCAGCCTCCCGTGTGGACTCCG
ACGGCTCCTTCTTCTCTGAGCAAGCTCACCCTGGACAGAGAGGTTGGCAGCAGGGGAACGTCTTCTCATGTCCGTGATGCAT
GAGGCTCTGCACAACCACTACACGAGAGAGCTCTCCTGTCTCCGGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCCCGGTC
GCTGGGTGAGTGTGGGGGAGGGGTTGGTCCAGCCTGGGGGTCCCGCTGAGACTCTCTGTACTGCTGTGATCCACCTACCTAGT
ACCACATGCAGTGGGTCCGGCAGGCACCTGGGAAGTGCCTGGAGTACATCGGAACCATTAGTAGTGGTGGTAATGTATACTACGCA
AGCTCCGCTAGAGGAGATTACCATCTCCAGACCTCTGTCGAAGAACAGGTGATCTTCAAATGAACAGCCTGAGAGCCGAGGA
CACGGCTGTGTATTACTGTGCGAGAGACTCTGGTTATAGTGATCCTATGTGGGGCCAGGGAACCTGGTCACCGTCTCTTCAGGCG
GTGGCGGTAGTGTGGGGGAGGGGTTGGTCCAGCCTGGGGGTGGAGGATCAGACGTTGTGATGACCCAGTCTCCATCTTCC
GTGTCTGCATCTGTAGGAGACAGAGTACCATCACCTGTGAGGCCAGTCAAGACATTAGGACTTACTTATCCTGGTATCAGCAGAA
ACCAGGGAAGCCCTAAGTCTCTGATCTATGCTGCAGCCAATCTGGCATCTGGGTCCCATCAAGGTTGAGCGGCAGTGGATCTG
GGACAGATTTCACTCTACCATCAGCGACTTGAACCTGGCGATGCTGCAACTTACTATTGTGAGTCTACCTATCTTGGTACTGAT
TATGTTGGCGGTGCTTTCGGCTGTGGGACCAAGGTGGAGATCAAATGA

>Sequence ID 151: SI-68P1 Chain B Amino Acid Sequence

QSALTQPASVSGSPGQSITISCTGTSSDVGGYNFVSWYQQHPGKAPKLMIIYDVSDRPSGVSDRFSGSKSGNTASLIISGLQADDEA
DYCYSSYSSSTHVFICGCTKVTVLGGGGSGGGSGGGSGGGSGVQLQESGGGLVKPGGSLRLSCAASGFTFSSYMSWVRQAP
GKCLEWVANINRDGSASYVDSVKGRTTISRDDAKNSLYLQMNLSRAEDTAVYYCARDRGVGYFDLWGRGTLTVTSTGGGGSGGGG
SDVMTQSPSTLSASVGDRTINCAQASEISSSWLAWYQQKPGKAPKLLIYEASKLASGVPSRFSGSGSGTEFTLTISLQPDFFAT
YYCQGYFYFTSRITYNSFGGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQ
DSKDYSTYLSLSTLTLSKADYEKHKVYACEVTHQGLSPVTKSFNRGECGGDKHTCTPPCPAPEAAGGSPVFLFPKPKDLMISRT
PEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDNLNGKEYKCAVSNKALPAPIEKTISKAKGQ
PREPQVYTLPPCRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSGGSFFLYSKLTVDKSRWQQGNVFCFSVM
HEALHNHYTQKSLSLSPGGGGSGGGSEVQLLESGGGGLVQPGGSLRLSCAASGFSFSSGYDMCWVRQAPGKCLEWIAICIAAGSAG
ITYDANWAKGRFTISRDNKNTLYLQMNLSRAEDTAVYYCARSAFSDYAMDLDWGQGLTIVTVSSGGGGSGGGSGGGSGGGSGGSDI
QMTQSPSTLSASVGDRTITCAQASQISSHLNWYQQKPGKAPKLLIYKASTLASGVPSRFSGSGSGTEFTLTISLQPDFFATYYC
QQGYSWGNVDNVFGCGTKVEIK

>Sequence ID 152: SI-68P1 Chain B Nucleotide Sequence

CAGTCTGCCCTGACTCAGCCTGCCTCCGTGTCTGGGTCTCCTGGACAGTCGATCACCATCTCCTGCACTGGAACAGCAGTGACGT
TGGTGGTTATAACTTTGTCTCCTGGTACCAACAACACCCAGGCAAAGCCCCAAACTCATGATCTATGATGTGAGTGATCGGCCCT
CAGGGGTGTCTGATCGCTTCTCCGGCTCCAAGTCTGGCAACACGGCCTCCCTGATCATCTCTGGCTCCAGGCTGACGACAGGCT
GATTATTACTGCAGCTCATATGGGAGCAGCAGCACTCATGTGATTTTCGGCTGTGGGACCAAGGTGACCGTCTAGGCGGTGGCGG
TAGTGGGGGAGGCGGTTCTGGCGGGGAGGGTCCGGCGGTGGAGATCAGAGTGCAATTGCAGGAGTCGGGGGAGGCGCTGGTCA
AGCCTGGAGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCTTTAGTAGTTATTGGATGAGCTGGGTCCGCCAGGCTCCA
GGGAAGTGCTGGAGTGGGTGGCCAACATAAACCCGATGGAAGTGCAGGTTACTATGTGGACTCTGTGAAGGGCCGATTACCAT
CTCCAGAGACGACGCCAAGAACTCACTGTATCTGCAATGAACAGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAG
ATCGTGGGGTGGGCTACTTCGATCTCTGGGGCCGTGGCACCTTGGTCAACGTGTGCACAGGCGGTGGAGGTCGGCGGTGGTGA
TCAGACGTCTGATGACCCAGTCTCCTTCCACCCTGTCTGCATCTGTAGGAGACAGAGTACCATCAATTGCCAAGCCAGTGAGAG
CATTAGCAGTTGGTTAGCCTGGTATCAGCAGAAACAGGGAAGCCCTAAGCTCCTGATCTATGAAGCATCCAACTGGCATCTG
GGGTCCCATCAAGGTTACGCGCAGTGGATCTGGGACAGAATTCACTTCCACCATCAGCAGCCTGCAGCCTGATGATTTTGCAACT
TATTACTGCCAAGGCTAATTTTATTTTATTAGTCGTACTTATGTAAATCTTTTCGGCGGAGGGACCAAGGTGGAGATCAACAGGTAC
GGTGGCTGCACCATCTGTCTTCTATCTTCCCGCATCTGATGAGCAGTTGAAATCTGGAATGCCTCTGTTGTGTGCTGCTGAATA
ACTTCTATCCAGAGAGGCCAAAGTACAGTGGAAGGTGGATAACGCCCTCCAATCGGGTAACTCCAGGAGAGTGTACAGAGCAG
GACAGCAAGGACAGCACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAGAGCAGACTACGAGAAACACAAAGTCTACGCCCTGCGA
AGTACCCCATCAGGGCCTGAGCTCGCCCTCACAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGACAAAACCTACACATGCCAC
CGTGCCACAGCCTGAAGCCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAACCAAGGACACCTCATGATCTCCCGGACC
CCTGAGGTACATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCA
TAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACGCCAGCAGCTACCGTGTGGTCAGCGTCTCACCCTCTGCACCAGGACTGGC
TGAATGGCAAGGATACAAAGTGGCGGTCTCCAAACAAGCCCTCCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGCGAG
CCCCGAGAACCACAGGTGTACACCTGCCCCATGTGGGATGAGCTGACCAAGAACAGGTGAGCCTGTGGTGCCTGGTCAAAGG

CTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGACT
 CCGACGGCTCCTTCTCTCTATAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATG
 CATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCCGA
 GGTGCAGCTGTTGGAGTCTGGGGGAGGCTTGGTACAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCTCCTTCA
 GTAGCGGGTACGACATGTGCTGGGTCCGCCAGGCTCCAGGGAAGTGCCTGGAGTGGATCGCATGCATTGCTGCTGGTAGTGCTGGT
 ATCACTTACGACGCAACTGGGCGAAAGGCCGGTTCACCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTGCAAAATGAACAG
 CCTGAGAGCCGAGGACACGGCCGTATATTACTGTGCGAGATCGGCGTTTTCGTTGACTACGCCATGGACCTCTGGGGCCAGGGAA
 CCCTGGTACCGCTCTCGTCTGGTGGAGGCGGTTACGGCGGAGGTGGAAGTGGTGGTGGCGGCTCTGGAGGCGGCGGATCTGACATC
 CAGATGACCCAGTCTCCTTCCACCCTGTCTGCATCTGTAGGAGACAGAGTACCATCACTTGCCAGGCCAGTACAGAGCATAGTTC
 CCACTTAACTGGTATCAGCAGAAACAGGGAAAGCCCCTAAGCTCCTGATCTATAAGGCATCCACTCTGGCATCTGGGGTCCCAT
 CAAGGTTACGCGGCAGTGGATCTGGGACAGAATTTACTCTCACCATCAGCAGCCTGCAGCCTGATGATVTTTGAACCTTATTACTGC
 CAACAGGGTTATAGTTGGGTAATGTTGATAATGTTTTCGGCTGCGGGACCAAGGTGGAGATCAAATAG

>Sequence ID 153: SI-49R26 Chain A Amino Acid Sequence

FLNSLFNQEVQIPLTESYCGPCPNWICYKNNCYQFFDESKNWEYESQASCMSONASLLKVYSKEDQDLLKLKVSYHWMGLVHIPTN
 GSWQWEDGSLSPNLLTIEMQKGDICALYASSFKGYIENSTPNTYICMORTVASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYF
 PEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLGQTQYICNVNHKPSNTKVDKRVKPSKCDKHTHTCPPCPAPEAAG
 GPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHGDWLNKKEYKCA
 VSNKALPAPIEKTISKAKGQPREPQVCTLPFSRDELTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSGGSFFLVS
 KLTVDKSRWQQGNVFSQSVMEALHNHYTQKSLSLSPG

>Sequence ID 154: SI-49R26 Chain A Nucleotide Sequence

TTTCTTAATTCCTTTTCAACCAAGAGGTTCAAGATCCCCCTTGACTGAAAGCTATTGCGGCCCTTGTCCGAAAACTGGATATGTTA
 CAAGAATAATTGTTACCAATTCTTCGACGAAAGCAAGAACTGGTATGAGAGTCAGGCGTCTTGTATGAGTCAGAATGCCAGCCTGC
 TTAAGGTTTTATTCAAAGAAGACAGGATCTGCTTAAGTTGGTAAAGAGCTACCACTGGATGGGGCTGGTACATATCCCAACGAAT
 GGGTCATGGCAGTGGGAGGACGGTCTATTCTGAGTCCAATCTCCTGACGATCATCGAAATGCAGAAAGGGGACTGTGCCCTGTA
 TGCATCATCTTCAAGGGGTACATCGAGAACTGCAGTACCCAAATACCTACATTTGTATGCAAGAAGCGGTTGCTAGCACCAAGG
 GCGCATCGGTCTTCCCCCTGGCACCTCTCCAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGACTACTTC
 CCCGAACCGGTGACGGTGTCTGGAACTCAGGCGCCCTGACCGAGCGGCTGCACACCTTCCCGGCTGTCTACAGTCTCCAGGACT
 CTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCAGCA
 ACACCAAGGTGGACAGAGAGTTGAGCCCAAATCTTGTGACAAAACCTCACACATGCCACCGTCCCGAGCACCTGAAGCCGCGGGG
 GGACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACACCTCATGATCTCCCGACCCCTGAGGTACATGCGTGGTGGTGGGA
 AGTGGAGAGCAATGGGCGAGCCGGAGAACAACTACAAGACACGCGCTCCCGTGTGGACTCCGACGGCTCTTCTTCTCTGTGAGC
 AAGCTACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACAC
 GCAGAAGAGCCTCTCCTGTCTCCGGTTAA

>Sequence ID 155: SI-49R26 Chain B Amino Acid Sequence

FLNSLFNQEVQIPLTESYCGPCPNWICYKNNCYQFFDESKNWEYESQASCMSONASLLKVYSKEDQDLLKLKVSYHWMGLVHIPTN
 GSWQWEDGSLSPNLLTIEMQKGDICALYASSFKGYIENSTPNTYICMORTVRTVAAPSVFI FPPSDEQLKSGTASVCLNNFY
 PREAKVQWKVDNALQSGNSQESVTEQDSKDYSLSTLTLSKADYEKKHVVYACEVTHQGLSSPVTKS FNRGECGGDKHTHTCPPCP
 APEAAGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHGDWLNK
 KEYKCAVSNKALPAPIEKTISKAKGQPREPQVYTLFPCRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSG
 SFFLYSKLTVDKSRWQQGNVFSQSVMEALHNHYTQKSLSLSPG

>Sequence ID 156: SI-49R26 Chain B Nucleotide Sequence

TTCTTAAACTCATTATTCAACCAAGAAGTTCAAATTCCTTGACCGAAAGTTACTGTGGCCATGTCTTAAAACTGGATATGTTA
 CAAAATAACTGCTACCAATTTTTGATGAGAGTAAAACTGGTATGAGAGCCAGGCTTCTTGTATGTCTCAAATGCCAGCCTTC
 TGAAAGTATACAGCAAAGAGGACAGGATTTACTTAAACTGGTGAAGTCATATCATTGGATGGGACTAGTACACATTCCAACAAAT
 GGATCTTGGCAGTGGGAAGATGGCTCCATTCTCTACCCAACTACTAACAATAATTGAAATGCAGAAAGGGAGACTGTGCACTCTA
 TGCCCTCGAGCTTTAAAGGCTATATAGAAAACGTTCAACTCCAATACGTACATCTGCATGCAAGGACTGTGCGTACGGTGGCTG
 CACCATCTGTCTTCATCTTCCCGCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTTGTGTGCTGCTGAATAACTTCTAT
 CCCAGAGAGCCAAAGTACAGTGGAGGTGGATAACGCCCTCCAATCGGGTAATCCCAGGAGAGTGTACAGAGCAGGACAGCAA
 GGACAGCACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAAGCAGACTACGAGAAACACAAAGTCTACGCTGCGAAGTACCCC
 ATCAGGGCCTGAGCTCGCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGACAAAACCTCACACATGCCACCGTGCCCA
 GCACCTGAAGCCGCGGGGGGACCGTCACTCTTCTTCCCCCAAAACCAAGGACACCTCATGATCTCCCGACCCCTGAGGT

CACATGCGTGGTGGTGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCA
AGACAAAGCCGCGGGAGGAGCAGTACGCCAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCTTGCACAGGACTGGCTGAATGGC
AAGGAGTACAAGTGGCGGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCAAAGCCAAAGGGCAGCCCCGAGA
ACCACAGGTGTACACCTGCCCCATGTCTGGGATGAGCTGACCAAGAACAGGTACAGCTGTGGTGCCTGGTCAAAGGCTTCTATC
CCAGCGACATCGCGTGGAGTGGGAGAGCAATGGGACGCCGAGAACAACTACAAGACCAGCCTCCCGTGTGGACTCCGACGGC
TCCTTCTTCTCTATAGCAAGCTCACCGTGGACAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGC
TCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTTAA

>Sequence ID 157: SI-49R27 Chain A Amino Acid Sequence

EIVMTQSPSTLSASVGDRVIITCQASESISSWLAWYQQKPKAPKLLIYEASKLASGVPSRFSGSGSGAEFTLTISLQPDFFATY
YCQGYFYFISRTYVNSFGCGTKLTVLSTGSGSKPGSGEGSTKGEVQLVESGGGLVQPGGSLRLSCTASGFTISTNAMSWVRQAPG
KCLEWVGVIITGRDIITYYASWAKGRFTISRDTSKNTVYLLQMNSLRAEDTAVYYCARDGGSSAITSNNIWQGGLTVTVSTGGGSGGG
GSFLNSLNFQEVQIPLTESYCGPCPNWICYKNNCYQFFDESKNWEYSQASCMSONASLLKVYSKEDQDLLKLKVS YHWMGLVHI
TNGSWQWEDGSILSPNLLTIEMQKGDALYASSFKGYIENCSTPNTYICMQRVASTKGPSVFPLAPSSKSTSGGTAALGCLVKD
YFPEPVTWNSGALTSGVHTFPAVLQSSGLYSLSSVTVFSSSLGTQTYICNVNHKPSNTKVDKRVPEPKSCDKHTHTCPPCPAPEA
AGGPVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDNLNGKEYK
CAVSNKALPAPIEKTI SKAKGQPREPQVCTLPSPRDELTKNQVSLCAVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFL
VSKLTVDKSRWQQGNVFSVMHEALHNHYTQKSLSLSPG

>Sequence ID 158: SI-49R27 Chain A Nucleotide Sequence

GAGATCGTGATGACACAATCTCCATCTACGCTCTCCGCTCAGTGGGCGATAGAGTAATTATTACTTGTCAAGCCTCAGAGAGCAT
TTCATCATGGCTCGCTGGTATCAGCAAAAGCCTGGGAAGGCCCCAACTTCTCATCTATGAAGCATCAAAGCTGGCCTCTGGGG
TTCGCTCTCGCTTCTCCGGGTCCGGCAGTGGTGCAGAGTTACGTTGACTATATCTTCTTTCGCAACCTGACGATTCGCAACATAT
TATTGCCAGGGATACTTTTATTTTATTTCCCGAACATATGTTAACTCTTTTGGGTGCGGGACCAAACCTCACTGTGCTGGGGTCTAC
CGGTAGTGGTCTTAAGCCTGGTTCAGGCCAAGGCAGTACGAAAGGGGAAGTGCAACTGGTTCGAAAGCGGTGGAGGGCTTGTTCAC
CTGGAGGAAGCCTCCGCTTGTCTGCACGGCTAGCGGCTTTACAATAAGTACGAACGCCATGAGCTGGGTCCGGCAGGCTCCAGGT
AAGTGTCTCGAATGGGTGGGGGTCTAAACAGGCAGGGACATTACCTACTACGCCAGTGGGCCAAGGGTCGATTACCATTTCTAG
AGATACATCCAAGAACACGGTGTACCTCCAGATGAATCTCTTAGGGCGGAAGACACAGCAGTATACTACTGCGCGCGAGATGGCG
GGAGCAGTGCATCATCCCAACACATCTGGGGTCAGGGCACTCTTGTACCGGTGTCGACTGGCGGTGGAGGGTCCGGCGGTGGT
GGATCATTTCTTAATTCCTTTTCAACCAAGAGGTTGAGTCCCCTTGACTGAAAGCTATTGCGGCCCTTGTCCGAAAACTGGAT
ATGTTACAAGAATAATGTTACCAATCTTCGACGAAAGCAAGAACTGGTATGAGAGTCAGGCGTCTTGTATGAGTCAGAATGCCA
CCCTGCTTAAGGTTTATTCAAAGAAGACCAGGATCTGCTTAAGTTGGTAAAGAGCTACCACTGGATGGGGCTGGTACATATCCCA
ACGAATGCGTACATCGCAGTGGGAGGACGGTCTATTCTGAGTCCAAATCTCCTGACGATCATCGAAATGCAGAAAGGGGACTGTGC
CCTGTATGCATCATCTTCAAGGGGTACATCGAGAACTGCAGTACCCCAATACCTACATTTGTATGCAAGAACGGTTGCTAGCA
CCAAGGGGCCATCGGTCTTCCCCCTGGCACCCCTCTCCAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGAC
TACTTCCCCGAACCGGTGACGGTGTCTGGAAGTCAAGGCGCCCTGACCAGCGCGGTGCACACCTTCCCGGCTGTCTACAGTCTC
AGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTTGAATCACAAGC
CCAGCAACACCAAGGTGGACAAGAGAGTTGAGGCCAAATCTTGTACAAAACCTCACACATGCCACCGTGCCCGACCTGAAGCC
GCGGGGGGACCGTCACTCTTCTTCCCCCAAAACCAAGGACACCTCATGATCTCCCGGACCCCTGAGGTACATGCGTGGT
GGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGC
GGGAGGAGCAGTACGCCAGCACGTACCGTGTGGTCAGCGTCTCACCCTCTGCACAGGACTGGCTGAATGGCAAGGAGTACAAG
TGCGCGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTG
TACCTTCCCCCATCCCGGGATGAGCTGACCAAGAACAGGTGAGCCTGTCTGCGCGCTCAAAGGCTTCTATCCAGCGACATCG
CGGTGGAGTGGGAGAGCAATGGGCAGCCGAGAACAACTACAAGACCACGCCTCCCGTGTGGACTCCGACGGCTCCTTCTTCTC
CTGAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCA
CTACACGCAGAAGACCTCTCCCTGTCTCCGGGTTAA

>Sequence ID 159: SI-49R27 Chain B Amino Acid Sequence

FLNSLNFQEVQIPLTESYCGPCPNWICYKNNCYQFFDESKNWEYSQASCMSONASLLKVYSKEDQDLLKLKVS YHWMGLVHIPTN
GSWQWEDGSILSPNLLTIEMQKGDALYASSFKGYIENCSTPNTYICMQRVTRVAAPSVFIFPPSDEQLKSGTASVCLLNNFY
PREAKVQWKVDNALQSGNSQESVTEQDSKSTYLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGECGGDKTHTCPPCP
APEAAGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDNLNG
KEYKCAVSNKALPAPIEKTI SKAKGQPREPQVYTLPCRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDG
SFFLYSKLTVDKSRWQQGNVFSVMHEALHNHYTQKSLSLSPG

>Sequence ID 160: SI-49R27 Chain B Nucleotide Sequences

TTCCTAAACTCATTATTCAACCAAGAAGTTCAAATTCCTTGACCGAAAGTTACTGTGGCCCATGTCTAAAAACTGGATATGTTA
CAAAAATAACTGCTACCAATTTTGTGAGAGTAAAAACTGGTATGAGAGCCAGGCTTCTTGTATGTCTCAAAATGCCAGCCTTC
TGAAAGTATACAGCAAAGAGGACCAGGATTTACTTAACTGGTGAAGTCATATCATTGGATGGGACTAGTACACATTCCAACAAAT

GGATCTTGGCAGTGGGAAGATGGCTCCATTCTCTACCCAACTACTAACAATAATTGAAATGCAGAAGGGAGACTGTGCACTCTA
TGCCCTCGAGCTTTAAAGGCTATATAGAAAAGCTGTCAACTCCAAATACGTACATCTGCATGCAAAGGACTGTGCGTACGGTGGCTG
CACCATCTGTCTTCATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTTGTGTGCCTGCTGAATAACTTCTAT
CCCAGAGAGGCCAAAGTACAGTGGAAAGGTGGATAACGCCCTCCAATCGGGTAACTCCCAGGAGAGTGTACAGAGCAGGACAGCAA
GGACAGCACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAAGCAGACTACGAGAAACACAAAGTCTACGCCTGCGAAGTCACCC
ATCAGGGCCTGAGCTCGCCCGTCAAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGCAAAACTCACACATGCCCACCGTGCCCA
GCACCTGAAGCCGCGGGGGACCGTCAGTCTTCTCTTCCCCCAAACCAAGGACACCTCATGATCTCCCGGACCCCTGAGGT
CACATGCGTGGTGGAGCTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCA
AGACAAAGCCGCGGGAGGAGCAGTACGCCAGCACGTACCGTGTGGTCAAGCTCCTCACCCTCCTGCACAGGACTGGCTGAATGGC
AAGGAGTACAAGTGCAGCGTCTCCAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGCGAGCCCCGAGA
ACCACAGGTGTACACCTGCCCCCATGTGCGGATGAGCTGACCAAGAACAGGTGAGCCTGTGGTGCCTGCTCAAGGGCTTCTATC
CCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGTGGACTCCGACGGC
TCCTTCTTCTCTATAGCAAGCTCACCGTGGACAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGC
TCTGCACAACCACTACACGAGAAGACCTCTCCCTGTCTCCGGTTAA

>Sequence ID 161: SI-49R25 Chain A Amino Acid Sequence

EIVMTQSPSTLSASVGRVITTCQASESISWLAHYQQKPGKAPKLLIYEASKLASGVPSRFSGSGSGAEFTLTISLQPDFFATY
YCQGYFYFISRTYVNSFGCGTKLTVLSTGSGSKPGSGEGSTKGEVQLVESGGGLVQPGGSLRLSCTASGFTISTNAMSWMRQAPG
KCLEWVGVTIGRDITYYASWAKGRFTISRDTSKNTVYQLQMSLRAEDTAVYYCARDGGSSAITSNNIWGGTGLTVTVSTGGGSGGG
GSFLNSLFGVEVQIPLTESYCGPCPKNWICYKNNCYQFFDESKNYESQASCMQNASLLKVYSKEDQDLLKLKVS YHWMGLVHIP
TNGSQWEDGSILSPNLLTIEMQKGDALYASSFKGYIENCSTPNTYICMQRVASTKGPSVFPLAPSSKSTSGGTAALGCLVKD
YFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLGTQTYICNVNHKPSNTKVDKRVKPKSCDKHTHTCPPAPAEA
AGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYK
CAVSNKALPAPIEKTISKAKGQPREPQVCTLPSPRDELTKNQVLSLCAVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFL
VSKLTVDKSRWQQGNVFSVSMHEALHNHYTQKSLSLSPG

>Sequence ID 162: SI-49R25 Chain A Nucleotide Sequence

GAGATCGTGATGACACAATCTCCATCTACGCTCTCCGCCTCAGTGGGCGATAGAGTAATTATTACTTGTCAAGCCTCAGAGAGCAT
TTCAATCATGGCTCGCTGGTATCAGCAAAAGCCTGGGAAGGCCCCAACTTCTCATCTATGAAGCATCAAAGTGCCCTCTGGGG
TTCCGTCTCGCTTCTCCGGGTCCGGCAGTGGTGCAGAGTTTACGTTGACTATATCTTCTTTCGCAACCTGACGATTTGCAACATAT
TATTGCCAGGATACCTTTTATTTTATTTCCCGAACATATGTTAACTCTTTTGGGTGCGGGACCAAACCTCACTGTGCTGGGGTCTAC
CGGTAGTGGTCTAAGCCTGGTTCAGGCGAAGGCAGTACGAAAGGGGAAGTGAACCTGGTTCGAAAGCGGTGGAGGGCTTGTTCAC
CTGGAGGAAGCCTCCGCTTGTCTGCACGGCTAGCGGCTTTACAATAAGTACGAACGCCATGAGCTGGGTCCGGCAGGCTCCAGGT
AAGTGTCTCGAATGGGTGGGGGTACATAACAGGCAGGGACATTACCTACTACGCCAGTGGGCCAAGGGTCGATTTACCATTTCTAG
AGATACATCCAAGAACACGGTGTACCTCCAGATGAATCTCTTAGGGCGGAAGACACAGCAGTATACTACTGCGCGCGAGATGGCG
GGAGCAGTGCATACATCAACAACATCTGGGGTCAGGGCACTCTTGTACGGTGTGACTGGCGGTGGAGGGTCCGGCGGTGGT
GGATCATTTCTTAATTTCCCTTTTCAACCAAGAGGTTCAAGTCCCTTGACTGAAAGCTATTGCGGCCCTTGTCCGAAAAACTGGAT
ATGTTACAAGAATAATTGTTACCAATTCTTCGACGAAAGCAAGAACTGGTATGAGAGTCAAGCGTCTTGTATGAGTCAGAATGCCA
GCCTGCTTAAGGTTTATTCAAAAGAGACAGGATCTGCTTAAGTTGGTAAAGAGCTACCACTGGATGGGGCTGGTACATATCCCA
ACGAATGGGTATGGCAGTGGGAGGACGGTCTATTCTGAGTCCAAATCTCCTGACGATCATCGAAATGCAGAAAGGGGACTGTGC
CCTGTATGCATCATCCTTCAAGGGGTACATCGAGAAGTGCAGTACCCCAAAATACCTACATTTGTATGCAAGAAGCGGTTGCTAGCA
CCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGAC
TACTTCCCCGAACCGGTGACGGTGTCTGGAAGTCAAGCGCCCTGACAGCGCGGTGCACACCTTCCCGGCTGTCTACAGTCCCTC
AGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGC
CCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAATCTTGTGACAAAACCTCACACATGCCACCGTGCCAGCACCTGAAGCC
GCGGGGGGACCGTCACTCTTCTCTTCCCCCAAACCAAGGACACCTCATGATCTCCCGGACCCCTGAGGTACATGCGTGGT
GGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGC
GGGAGGAGCAGTACGCCAGCACGTACCGTGTGGTCAAGCTCCTCAGGCTCTGACCAGGACTGGCTGAATGGCAAGGAGTACAAG
TGCGCGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAGCCAAAGGGCAGCCCCGAGAACCAAGGTGTG
TACCTTGCCCCCATCCCGGATGAGCTGACCAAGAACCAGGTGAGCCTGTCTGCGCGCTCAAGGGCTTATCCAGCGACATCG
CCGTGGAGTGGGAGAGCAATGGGAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGTGGACTCCGACGGCTCCTTCTCTCTC
GTGAGCAAGTCAACGTGGACAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCA
CTACACGAGAAGACCTCTCCCTGTCTCCGGTTAA

>Sequence ID 163: SI-49R25 Chain B Amino Acid Sequence

ENVLTQSPASLSASPGERVITITCSASSSVSYMHYQQKPGQAPKLIWYDTSKLASGVPSRFSGSGSGNDHTLTISSEMPEDFATYY
CFQGSVYPFTFGQGTKLEIKGSTGSGSKPGSGEGSTKGQVTLKESGPGLVQPGQTLRLTCAFSGFSLSSTSGMGVWIRQPPGKLE
WLAHIWDDDKRYNPALKSRLTISKDTSKNQVYQLQMSLDAEDTAVYYCARMELWSYFDYWGQGLTVTVSTGGGSGGGGSLNS
LFGVEVQIPLTESYCGPCPKNWICYKNNCYQFFDESKNYESQASCMQNASLLKVYSKEDQDLLKLKVS YHWMGLVHIP TNGSQW
WEDGSILSPNLLTIEMQKGDALYASSFKGYIENCSTPNTYICMQRVTRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREA

KVQWKVDNALQSGNSQESVTEQDSKDSYSLSSLTLSKADYEEKHKVYACEVTHQGLSSPVTKSFNRGECGGDKTHTCPCPAPAEA
AGGP SVFLFPKPKD TLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQD WLNKKEYK
CAVSNKALPAPIEKTISKAKGQPREPQVYTLPPCRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFL
YSKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPG

>Sequence ID 164: SI-49R25 Chain B Nucleotide Sequence

GAAATGTATTGACACAGAGCCCCGCCTCCCTCAGTGCCTCACCTGGGGAAAGGGTAACATACACTTGCTCTGCATCAAGCAGCGT
CTCATACATGCAATGGTATCAACAAAAGCCTGGACAGGCCCCAAGCTCTGGATATACGATACGAGCAAGCTGGCTTCCGGCGTAC
CTAGCCGCTTCAAGTGGTCCGGCTCAGGCAACGATCACACCCCTTACGATTTCCAGTATGGAACCCGAAGATTTTGCAACTTATTAT
TGTTTCCAGGGAGGGTGTACCCATTCACTTTCGGGCAGGGGACAAAATGGAGATAAAGGGAAGTACTGGTTCTGGGTCTAAACC
CGGTTCGGCGAAGGTAGTACTAAAGGACAGGTACATTTGAAGGAATCTGGCCCCGGCCTTGTTTCAGCCAGGACAGACCCCTTAGGC
TCACCTGTGCCTTCAGTGGTTTTTCTCTTAGCACTAGCGGTATGGGGTTCGGCTGGATTCCGGCAGCCTCCCGGCAAGGTCTTGAG
TGTTTGGCTCACATTTGGTGGGACGACGACAAACGGTATAATCTGCCTTGAAAGTCGGCTGACCATTAGTAAGGATACCTCAAA
AAATCAAGGTGATCTTGAATGAATAGCCTTGACGCCGAGGATACGGCTGTATATTATTGCGCGCGGATGCAAACTCTGTTCTTACT
ACTTTGATTATTGGGGGACAGGGACTCTCGTCACGGTGTGCACTGGCGGTGGAGGGTCCGGCGGTGGTGGATCATTTCTAAACTCA
TTATTCACCAAGAAGTTCAAATCCCTTGACCGAAAGTACTGTGGCCCATGTCTTAAAACTGGATATGTTACAAAAATAACTG
CTACCAATTTTTGATGAGAGTAAAACTGGTATGAGAGCCAGGCTTCTTGTATGTCTCAAAATGCCAGCCTTCTGAAAGTATACA
GCAAGAGGTGCAAGGTGGATAACGCCCTTGAAGTCAATCATTTGGATGGGACTAGTACACATTCACCAAAAGGATCTTGTTCAG
TGGGAAGATGGCTCCATTCTCTACCCCACTACTAACAATAATTGAAATGCAGAAGGGAGACTGTGCACTCTATGCCTCGAGCTT
TAAAGGCTATATAGAAACTGTTCAACTCCAAATACGTACATCTGCATGCAAGGACTGTGCGTACGGTGGCTGCACCATCTGTCT
TCATCTTCCCGCATCTGATGAGCAGTTGAAATCTGGAATGCCTCTGTTGTGTGCCTGCTGAATAACTTCTATCCCAGAGAGGCC
AAAGTACAGTGGGAAGGTGGATAACGCCCTTGAAGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCG
CAGCCTCAGCAGCACCCCTGACGCTGAGCAAGCAGACTACGAGAAACACAAAGTCTACGCTGCGAAGTCACCCATCAGGGCCTGA
GCTCGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGACAAACTCACACATGCCACCCGTGCCAGCACCTGAAGCC
CGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACACCCCTCATGATCTCCCGGACCCCTGAGGTACATGCGTGGT
GGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCG
GGGAGGAGCAGTACGCCAGCAGTACCGTGTGGTCAAGCTCCTCAGCGTCTGCAACGAGGACTGGCTGAATGGCAAGGAGTACAAG
TGCGCGGTCTTCAACAAAGCCCTCCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACACAGGTGTA
CACCTGCCCCATGTCCGGATGAGCTGACCAAGAACCAGGTGAGCCTGTGGTGCCTGGTCAAAGGCTTCTATCCCAGCGCATCG
CCGTGGAGTGGGAGGCAATGGGAGCCGAGAGAACAACTACAAGACCACGCTCCCGTCTGGACTCCGACGGCTCCTTCTTCCCT
TATAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCA
CTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAA

>Sequence ID 165: SI-49P_x Chain A Amino Acid Sequence

EIVMTQSPSTLSASVGDRIITCQASESISWLAHYQKPKAPKLLIYEASKLASGVPSRFSGSGSGAEFTLTISLQPDFFATY
YCQGYFYFISRTYVNSFGCGTKLTVLGGTSGSGSKPGSGEGSTKGEVQLVESGGGLVQPGGSLRLSCTASGFTISTNAMSWVRQAPG
KCLEWVGVI TGRDITYYASWAKGRFTISRDTSKNTVY LQMNSLR AEDTAVYYCARDGGSSAITSNNIWQGGLTVTVSTGGGSGGG
GSFLNSLFNQEVQIPLTESYCGPCPNWICYKNNCYQFFDESKNWYESQASCMQNASLLKVYSKEDQDLLKLVKSYHWMGLVHIP
TNGSWQWEDGSILSNLLTIEMQKGDALYASSFKGYIENCSTPNTYICMQRVASTKGPSVFPLAPSSKSTSGGTAALGLVKD
YFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHKPSNTKVDKRVPEKSCDKTHTCPCPAPAEA
AGGP SVFLFPKPKD TLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQD WLNKKEYK
CAVSNKALPAPIEKTISKAKGQPREPQVCTLPPSRDELTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFL
YSKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPG

>Sequence ID 166: SI-49P_x Chain A Nucleotide Sequence

GAGATCGTGATGACACAATCTCCATCTACGCTCTCCGCCTCAGTGGGCGATAGAGTAATTATTACTTGTCAGCCCTCAGAGAGCAT
TTCATCATGGCTCGCTGGTATCAGCAAAAGCCTGGGAAGGCCCCCAAACTTCTCATCTATGAAGCATCAAAGCTGGCCTCTGGGG
TTCCGTCTCGCTTCTCCGGGTCCGGCAGTGGTGCAGAGTTTACGTTGACTATATCTTCTTTGCAACCTGACGATTTGCAACATAT
TATTGCCAGGGATACTTTTATTTTATTTCCGAACATATGTTAACTCTTTTGGGTGCGGGACCAAACTCACTGTGCTGGGGTCTAC
CGGTAGTGGTTCTAAGCCTGGTTCAGGCGAAGGCAGTACGAAAGGGGAAGTGAACCTGGTGCAGGCGGTGGAGGGCTTGTTCAAC
CTGGAGGAAGCCTCCGCTTGTCTGCACGGCTAGCGGCTTACAATAAGTACGACGCCATGAGCTGGGTCCGGCAGGCTCCAGGT
AAGTGTCTCGAATGGGTGGGGGTACAAACAGGCAGGGACATTACCTACTACGCCAGTGGGCCAAGGGTCGATTACCATTTCTAG
AGATACATCCAAGAACACGGTGTACCTCCAGATGAATCTCTTAGGGCGGAAGACACAGCAGTATACTACTGCGCGCGAGATGGCG
GGAGCAGTGCATCACATCCAACAACATCTGGGGTCAGGGCACTCTTGTCACGGTGTGCACTGGCGGTGGAGGGTCCGGCGGTGGT
GGATCATTTTCTTAATCCCTTTTCAACCAAGAGGTTGAGTCCCTTACTGAAAGCTATTGCGGCCCTTGTCCGAAAACTGGAT
ATGTTACAAGAATAATTGTTACCAATTCTTCGACGAAAGCAAGAAGTGGTATGAGAGTCAAGGCTCTTGATGAGTCAAGATGCCA
GCCTGCTTAAGGTTTATTCAAAGAAGACCAGGATCTGCTTAAGTTGGTAAAGAGCTACCACTGGATGGGGCTGGTACATATCCCA
ACGAATGGGTGATGGCAGTGGGAGGACGGTCTATTCTGAGTCCAAATCTCCTGACGATCATCGAAATGCAGAAAGGGGACTGTGC
CCTGATGCATCTTCTCAAGGGGTACATCGAGAACTGAGTACCCCAATACCTACATTTGTATGCAAGAAGCGGTTGCTAGCA
CCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAGCACCTCTGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGAC

TACTTCCCCGAACCGGTGACGGTGTCTGTGGAACCTCAGGCGCCCTGACCAGCGCGGTGCACACCTTCCCGGTGTCTACAGTCCTC
 AGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGC
 CCAGCAACACCAAGGTGGACAAGAGATTGAGCCCAATCTTGTGACAAAACCTACACATGCCACCGTGGCCAGCACCTGAAGCC
 GCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACCCCTCATGATCTCCCGACCCCTGAGGTACATGCGTGGT
 GGTGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAGCCGC
 GGGAGGAGCAGTACGCCAGCAGTACCGTGTGGTCAAGCTCCTCACCCTGCTGCACAGGACTGGCTGAATGGCAAGGAGTACAAG
 TGCGCGGTCTCCAACAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAGCCAAGGGCAGCCCCGAGAACCAAGGTGTG
 TACCCTGCCCCATCCCGGATGAGCTGACCAAGAACCAGGTGAGCCTGCTCCTGCGCCGTCAAAGGCTTCTATCCAGCGACATCG
 CCGTGGAGTGGGAGAGCAATGGGCAGCCGAGAACTACAAGACCACGCTCCCGTGTGGACTCCGACGGCTCCTTCTTCTC
 GTGAGCAAGCTCACCCTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCA
 CTACACGCAGAAGACCTCTCCCTGTCTCCGGTTAA

>Sequence ID 167: SI-49P_x Chain B Amino Acid Sequence

ENVLTQSPASLSASPERVITITCSASSSVSYMHVYQKPGQAPKLIWYDTSKLASGVPSRFSGSGSNDHTLTITSSMEPEDFATYY
 CFQGSVYPFTFGQGTLEIKGSTGSGSKPGSGEGSTKGQVTLKESGPGVLVQPGQTLRLTCAFSGFLSTSGMGVGIWIRPPGKGL
 WLAHFWDDDKRYNPAKSLRLTISKDTSKNQVYLMNSLAEDTAVVYCMELWSYFYDWGQGLVTVSTGGGSGGGGSLNS
 LFNQEVQIPLTESYCGPCPNWICYKNNCYQFFDESKNWSYQASCMQNASLLKVYSKEDQDLKLKVSYHWMGLVHIPTNGSWQ
 WEDGSLSPNLLTIEMQKGDALYASSFKGYIENCSTPNTYICMQRVTVVAPSVFIFFPSDEQLKSGTASVCLLNNFYPREA
 KVQWKVDNALQSGNSQESVTEQDSKDSYSLSTLTLSKADYEHKHYACEVTHQGLSPVTKSFNRGECGGDKHTHTCPPCPAPEA
 AGGVSFVLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREQYASTYRVVSVLTVLHQDLNGLKEYK
 CAVSNKALPAPIEKTIKAKGQPREPQVYTLPPCRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFL
 YSKLTVDKSRWQQGNVFSVMHEALHNHYTQKSLSLSPGGGGGSGGGGSEVQLLESGGGLVQPGGSLRLSCAASGFSFSGYDMC
 WVRQAPGKCLEWIIACIAGSAGITYDANWAKGRFTISRDNSKNTLYLQMNSLRAEDTAVVYCARSAFSDYAMDLDWGQGLVTVSS
 GGGGSGGGGSGGGGSDIQMTQSPSTLSASVGRVITITCQASQSISSHLNWKYQKPGKAPKLLIYKASTLASGVPSRFSGSG
 SGTEFTLTITSLQPDFFATYYCQQYSGWNVNDNVFGCGTKVEIK

>Sequence ID 168: SI-49P_x Chain B Nucleotide Sequence

GAAATGTATTGACACAGAGCCCCGCTCCCTCAGTGCCTCACCTGGGGAAGGGTAACATCACTTGCTCTGCATCAAGCAGCGT
 CTCATACATGATTGGTATCAACAAAAGCGTGGACAGGCCCCAAGCTCTGGATATACGATACGAGCAAGCTGGCTTCCGGCGTAC
 CTAGCCGCTTCACTGGTTCGGGCTCAGGCAACGATCACACCTTACGATTTCAGTATGGAACCCGAAGATTTTGAACCTATTAT
 TGTTTCCAGGGAGCGTGTACCCATTCACTTTCGGGCAGGGGACAAAATGGAGATAAAGGGAAGTACTGGTTCGGGTCTAAACC
 CGGTTCGGCGAAGGTAGTACTAAAGGACAGGTACATTTGAAGGAATCTGGCCCCGGCCTTGTTCAGCCAGGACAGACCTTAGGC
 TCACCTGTGCTTTCAGTGGTCTTCTCTAGCACTAGCGGTATGGGGTGGGCTGGATTTCGGCAGCCTCCCGCAAGGTCTTGAG
 TGGTTCGGCTCACATTTGGTGGGACGACGACAAACGGTATAATCTGCCTTGAAAAGTCGGCTGACCATTAGTAAGGATACCTCAA
 AATCAAGTACTTTGCAATGAATAGCCTTGACCCGAGGATACGGCTGTATATTATTCGCGCGGATGGAATCTGGTCTTACT
 ACTTTGATTATTGGGGCAGGGGACTCTCGTCACGGTGTGACTGGCGGTGGAGGGTCCGGCGGTGGTGGATCATTCTAAACTCA
 TTATTCAACCAAGAAGTTCAAATTCCTTGACCGAAAGTTACTGTGGCCCATGTCTTAAACTGGATATGTTACAAAATAACTG
 CTACCAATTTTTGATGAGAGTAAACTGGTATGAGAGCCAGGCTTCTGTATGTCTCAAATGCCAGCCTTCTGAAAGTATACA
 GCAAAGAGGACAGGATTTACTTAACTGGTGAAGTCATATCATTTGGATGGGACTAGTACACATTCACAAATGGATCTTGGCAG
 TGGGAAGATGGCTCATTCTCTACCCAACTACTAACAAATTTGAAATGCAGAAGGGAGACTGTGCACTCTATGCTCGAGCTT
 TAAAGGCTATATAGAAAAGTTCAACTCCTTCACTCAAAATACGTACATCTGCATGCAAAGGACTGTGCGTACGGTGGCTGCACCATCTGTCT
 TCATCTTCCGCCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTGTGTGCTGCTGAATAACTTCTATCCAGAGAGGCC
 AAAGTACAGTGGAAAGGTGGATAACGCCCTCCAATCGGGTAACTCCAGGAGAGTGTACAGAGCAGGACAGCAAGGACAGCACCTA
 CAGCTCTCAGCAGCACCTGACGCTGAGCAAAGCAGACTACGAGAAACACAAAGTCTACGCTCGGAAGTCAACCATCAGGCTGA
 GCTCGCCCTGCACAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGCAAAACTCACACATGCCACCGTGGCCAGCACCTGAAGCC
 GCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACCCCTCATGATCTCCCGACCCCTGAGGTACATGCGTGGT
 GGTGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAGCCGC
 GGGAGGAGCAGTACGCCAGCAGTACCGTGTGGTCAAGCTCCTCACCCTGCTGCACAGGACTGGCTGAATGGCAAGGAGTACAAG
 TGCGCGGTCTCCAACAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAGCCAAAGGGCAGCCCCGAGAACCAAGGTGTA
 CACCTGCCCCCATGTGGGATGAGCTGACCAAGAACCAGGTGAGCCTGTGGTGCCTGGTCAAAGGCTTCTATCCAGCGACATCG
 CCGTGGAGTGGGAGAGCAATGGGCAGCCGAGAACTACAAGACCACGCTCCCGTGTGGACTCCGACGGCTCCTTCTTCTC
 TATAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCA
 CTACACGCAGAAGACCTCTCCCTGTCTCCGGGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCCGAGGTGCAGCTGTTGGAGTCTG
 GGGGAGGCTTGGTACAGCTGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCTCCTTCAGTAGCGGTACGACATGTGC
 TGGGTCCGCCAGGCTCCAGGGAAGTGCCTGGAGTGGATCGCATGCATTGCTGCTGGTAGTGTGGTATCACTTACGACGCGAAGT
 GCGGAAAGGCGGTTCAACATCTCCAGAGACAATCCAAGAACAGCTGTATCTGCAAATGAACAGCCTGAGAGCCGAGGACAGG
 CCGTATATTACTGTGCGAGATCGGCGTTTTCGTTGCACTACGCCATGGACCTCTGGGGCCAGGGAACCTGGTCACCGTCTCGTCT
 GGTGGAGGCGGTTCAGGCGGAGGTGGAAGTGGTGGTGGCGGCTTGGAGGCGGCGGATCTGACATCCAGATGACCCAGTCTCCTTC
 CACCTGTCTGCATCTGTAGGAGACAGAGTCAACATCACTTGCCAGGCCAGTCAAGCATTAGTTCCCACTTAAACTGGTATCAGC
 AGAAACCAGGGAAGCCCCAAGCTCCTGATCTATAAGGCATCCACTCTGGCATCTGGGTCCCATCAAGGTTCAAGCGGAGTGGA

TCTGGGACAGAATTTACTCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGCAACTTATTACTGCCAACAGGGTTATAGTTGGGG
TAATGTTGATAATGTTTTCGGCTGCGGGACCAAGGTGGAGATCAATAAG

>Sequence ID 169: SI-49P8 Chain A Amino Acid Sequence

EIVMTQSPSTLSASVGDRIITCQASESISSWLAWYQQKPKAPKLLIYEASKLASGVPSRFSGSGSGAEFTLTISLQPDFFATY
YCQGYFYFISRTYVNSFGCGTKLTVLGSTGSGSKPGSGEGSTKGEVQLVESGGGLVQPGGSLRLSCTASGFTISTNAMSWMVRQAPG
KCLEWVGVIITGRDITYYASWAKGRFTISRDTSKNTVYLMQNSLRAEDTAVYYCARDGGSSAITSNNIWGGQLTVTVSTGGGSGGGG
GSFLNSLFNQEVQIPLTESYCGPCPKNWICYKNNCYQFFDESKNWEYESQASCMSQNASLLKVYSKEDQDLLKLVKSYHWMGLVHIP
TNGSQWEDGSILSPNLLTIEMQKGDICALYASSFKGYIENCSTPNTYICMQRVASTKGPSVFPLAPSSKSTSGGTAALGLCLVKD
YFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLGTQTYICNVNHKPSNTKVDKRVKPKSCDKTHHTCPPCPAPEA
AGGSPVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVHLQDNLNKEYK
CAVSNKALPAPIEKTIKAKGQPREPQVCTLPSPRDELTKNQVLSLCAVKGFYPSDIAVEWESNGQPENNYKTTTPPVLDSDGSFFL
VSKLTVDKSRWQQGNVFSQSVMHLEAHNHYTQKSLSLSPGGGGSGGGGSRSLVESGGGLVQPGGSLRLSCTASGFTISSYHMQWV
RQAPGKCLEVIGTISGGNVYYASSARGFTISRPSKNTVDLQMNSLRAEDTAVYYCARDSDGYSDPMWQGGTLVTVSGGGGSGG
GGSGGGSGGGGSDVMTQSPSSVSASVGDRIITCQASQNIPTYLSWYQQKPKAPKLLIYAAANLASGVPSRFSGSGSGTDFTL
TISDLPEGDAATYYCQSTYLGTDYVGGAFGCGTKVEIK

>Sequence ID 170: SI-49P8 Chain A Nucleotide Sequence

GAGATCGTGATGACACAATCTCCATCTACGCTCTCCGCCTCAGTGGGCGATAGAGTAATTATTACTTGTCAAGCCTCAGAGAGCAT
TTCATCATGGCTCGCCTGGTATCAGCAAAAGCCTGGGAAGGCCCCAACTTCTCATCTATGAAGCATCAAAGCTGGCCTCTGGGG
TTCCTGCTCGCTTCTCCGGGTCCGGCAGTGGTGACAGAGTTACGTTGACTATATCTTCTTTGCAACCTGACGATTTGCAACATAT
TATTGCCAGGGATACTTTTATTTTATTTCCCGAACATATGTTAACTCTTTTGGGTGCGGGACCAAACTCACTGTGCTGGGGTCTAC
CGGTAGTGGTCTAAGCCTGGTTCAGGCGAAGGCAGTACGAAAGGGGAAGTGCAACTGGTCGAAAGCGGTGGAGGGCTTGTTC AAC
CTGGAGGAAGCCTCCGCTTGTCTGCACGGCTAGCGGCTTTACAATAAGTACGAACGCCATGAGCTGGTCCGGCAGGCTCCAGGT
AAGTGTCTCGAATGGGTGGGGGTCTATAACAGGCAGGGACATTACCTACTACGCCAGTTGGGCCAAGGGTCGATTACCATTTCTAG
AGATACATCCAAGAACACGGTGTACCTCCAGATGAATTCTCTTAGGGCGGAAGACACAGCAGTATACTACTGCGCGCGAGATGGCG
GGAGCAGTGCATCATCAACACATCTGGGGTCAGGGCACTCTTGTACCGTGTGCGACTGGCGGTGGAGGGTCCGGCGGTGGT
GGATCATTTCTTAATCCCTTTTCAACCAAGAGGTTGAGTCCCTTGACTGAAAGCTATTGCGGCCCTTGTCCGAAAACTGGAT
ATGTTACAAGAATAATTGTTACCAATTTCTCGACGAAAGCAAGAACTGGTATGAGAGTCAGGCGTCTTGTATGAGTCAGAAATGCCA
GCCTGCTTAAGGTTTATTCAAAGAAGACCAGGATCTGCTTAAGTTGGTAAAGAGCTACCACTGGATGGGGCTGGTACATATCCCA
ACGAATGGGTGATGCGAGTGGGAGGACGGTCTATTTCTGAGTCCAAATCTCCTGACGATCATCGAAATGCAGAAAGGGGACTGTGC
CCTGTATGCATCATCTTCAAGGGGTACATCGAGAACTGCAGTACCCCAATACCTACATTTGTATGCAAGAACGGTGTGCTAGCA
CCAAGGGGCGATCGTCTTCCCTTGGCACCCCTCCTCCAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGAC
TACTTCCCCGAACCGGTGACGGTGTCTGGAAGTACAGGCGCCCTGACCAGCGCGTGCACACCTTCCCGGCTGTCTACAGTCTCT
AGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGC
CCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCAAATCTTGTACAAAACCTCACACATGCCACCGTGGCCAGCACCTGAAGCC
GCGGGGGGACCGTACCTCTTCCCTTCCCCCAAAACCAAGGACACCTCATGATCTCCCGACCCCTGAGGTGATGCGGTGGT
GGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGC
GGGAGGAGCAGTACGCCAGCAGTACCGTGTGGTCAAGCTCCTCACCCTGCTGACCAAGGACTGGCTGAATGGCAAGGAGTACAG
TGCGCGGTCTCCAAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTG
TACCTGCCCCCATCCCGGATGAGCTGACCAAGAACAGGTGAGCCTGCTGCGCCGTCAAAGGCTTCTATCCAGCGACATCG
CCGTGGAGTGGGAGAGCAATGGGAGCCGGAGAACAACTACAAGACCACGCTCCCGTGTGGACTCCGACGGCTCCTTCTTCTC
GTGAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCA
CTACACGAGAGAGCCTCTCCCTGTCTCCGGGTGGCGGTGGAGGTCGGCGGTGGTGGATCCCGTGTGGTGGAGTCTGGGG
GAGGCTTGGTCCAGCTGGGGGTCCCTGAGACTCTCTGTACTGCTGCTGGATTACCATCAGTAGCTACCATGCAGTGGGTC
CGGCAGGCACCTGGGAAGTGCCTGGAGTACATCGGAACATTAGTAGTGGTGGTAAATGTATACTACGCAAGCTCCGCTAGAGGCAG
ATTACCATCTCCAGACCCCTCGTCCAAGAACAGGTGGATCTTCAAATGAACAGCCTGAGAGCCGAGGACACGGCTGTGTATTACT
GTGCGAGAGACTCTGGTTATAGTGATCTATGTGGGGCCAGGGAACCTGCTCACCCTCTCTCAGCGGTGGCGGTGGGAGTGGGGA
GGCGGTCTGGCGGGGAGGGTCCGGCGGTGGAGGATCAGACGTTGTGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGG
AGACAGAGTACCATCACCTGTGAGCCAGTCAGAACATTAGGACTTACTTATCTGGTATCAGCAGAAACAGGGAAAGCCCCCTA
AGCTCTGATCTGCTGCAGCCATCTGGCATCTGGGGTCCCATCAAGGTTACGCGGAGTGGATCTGGGACAGATTTCACTCTC
ACCATCAGCGACTTGGAACTGGCATGCTGCAACTTACTATTGTACGCTACCTATCTTGGTACTGATTATGTTGGCGGTGCTTT
CGGCTGTGGGACCAAGGTGGAGATCAATGA

>Sequence ID 171: SI-49P8 Chain B Amino Acid Sequence

ENVLTQSPASLSASPERVTITCSASSSVSYMHYQQKPKQAPKLIWYDTSKLAGVPSRFSGSGSGNDHTLTISSEMPEDFATYY
CFQGSVYPFTFGQGTKLEIKGSTGSGSKPGSGEGSTKGQVTLKESGPGLVQPGQTLRLTCAFSGFSLSSTSGMGVWIRPPGKGL
WLAHIWDDDKRYNPALKSRLTISKDTSKNQVYLMQNSLDAEDTAVYYCARMELWSYFDYWGQGLTVTVSTGGGSGGGGFLNS
LFNQEVQIPLTESYCGPCPKNWICYKNNCYQFFDESKNWEYESQASCMSQNASLLKVYSKEDQDLLKLVKSYHWMGLVHIP
TNGSQWEDGSILSPNLLTIEMQKGDICALYASSFKGYIENCSTPNTYICMQRVVRTVAAPSVFIAPPSPDEQLKSGTASVCLLNFPYPREA

KVQWKVDNALQSGNSQESVTEQDSKSDSTYLSLSTLTLSKADYEKKHKYVACEVTHQGLSPVTKSFNRGECGGDKTHTCTPPCPAPEA
AGGSPVFLFPPKPKDFTLMSIRTPTEVCTCVVVDVSHEDPEVKFNWYDVGLVEVHNKATKPREEQYASTYRVVSVLTVLHQDLNLSKEYK
CAVSNKALPALPEIKTISKAKGQPREPQVYTLPPCRDELTKNQVSLWCLVKHGKYPSTDAWEVESNGQPENNYKTTPPVLDSDSGSFFL
YSKLTVDKSRWQQGNVFSFCSVMHEALHNHYTQKSLSLSPGGGGGGGGGGSEVQLLESGGGLVQPGGSLRLSCAASGFSFSSGYSMDM
WVRQAPGKCLEWIACTAAGGSAGITVDANWAKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARSAFSDYAMDLDWGQGTIVTVSS
GGGGSGGGSGGGSGGGSGAGSDITMQTQSPSTLASVGDGRTVTCQASQSISSLNWYQQKPGKAPKLLIYKASTLSSGVPSPRFSGSG
SGTEFTLTISLQPPDFATYYCQQGYSWGNVDNVFGGCGTKVEIK

>Sequence ID 172: SI-49P8 Chain B Nucleotide Sequence

GAAATGTATTGACACAGAGCCCGCCTCCCTCAGTGCCCTCACCTGGGAAAGGGTAACTATCACTTGCTCTGCATCAAGCAGCGT
 CTCATACATGCATTGGTATCAACAAAGCCCTGGACAGGCCCCAAGCTCTGGATATACGATACGAGCAAGCTGGCTTCCGGCGTAC
 CTAGCCGCTTCAGTGGTTCGGCTCAGGCAACGATCACACCTTACGATTTCCAGTATGAAACCCGAAGATTTTGCAACTTATTAT
 TGTTTCCAGGGAGCGTGTAACCATTCACTTTCCGGCGAGGGGACAAATTTGAGATTAAGAGGAAGTACTGGTTCTGGGCTCTAAACC
 CGGTTCCGGCGAAGGTAGTACTAAAGGACAGGTACATTGAAAGGAATCTGGCCCCGGCCTTGTTACGCCAGGACAGACCCTTAGGC
 TCACTTGTCCTTCAGTGGTTTCTCTTAGCATAAGCGGTATGGGGTCCGGCTGATTCCGCAGCCTCCCGGCAAAAGGCTCTTAG
 TGGTTGGCTCACATTTGGTGGGACGACGACAAACGGTATAATCCTGCTTAAAGTCCGGTGACCATAGTAGGAGTAACCTCAA
 AAATCAAGTGACTCTGCAAAATGAATAGCCTTGACGCCAGGATACGGCTGTATATTATTGCGCGCGGATGGAACCTGGTCTTACT
 ACTTTGATTATTGGGGGACAGGGGACTCTCGTCACGGTGTCGACTGGCGGTGGAGGGTCCGGCGGTGTTGGATCATTTCTAAACTCA
 TTATTCAACCAAGAAGTTCAAATTCCTTCCGCGAAAGTTACTGTGGGCCCATGTCTCTAAAACTGGATATGTTACAAAAATAACTG
 CTACCAATTTTTGATGAGATGAAAACTGGGATGAGAGCGAGGCTTCTTTGATGTCCTCAAATCGCAGCCTTCTGAAAGTATACA
 GCAAAGAGGACAGGATTTACTTAAACTGGTGAAGTCATATCATTGGATGGGACTAGTACACATTTCAACAAATGGATCTTGGCAG
 TGGGAAGATGGCTCCATTCTCTCACCAACTACTAACAATTAATTGAAATCGAGAAGGGAGACTGTGCACCTCTATGCCCTCGAGCTT
 TAAAGGCTATATAGAAAATGTTCAACTCCAAATACGTACATCTGCATGCAAGGACTGTGCGTACCGTGGCTGCACCATCTGTCT
 TCATCTTCCGCCATCTGATGAGCAGTTGAAATCTGGAACCTGCTTGTGTGTGCTGCTGAATAACTCTATCCGACAGAGGCC
 AAAGTACAGTGAAGGTGGATAAGCCCTCCAATCGGGTAACTCCAGGAGAGTGTCAAGAGCAGGACAGGACAGCACCCTA
 CAGCCTCAGCAGCACCGTACGCTTGAGCAAGCAGACTACGAGAAACACAAAGTCTACGCTTGCAGACTCACCCTCAGGGCTGA
 GCTCGCCGCTCACAAGAGCTTCAACAGGGGAGGTGTGGAGGCGCAAAACTCACATGCCCAACCGTGGCCAGCACCCTGAAGCC
 GCGGGGGACGCTCAGTCTTCTCTTCCCCCAAACCCAAAGGACACCTCATGATCTCCGGGACCCCTGAGGCTCAGATCGGTGGT
 GGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGC
 GGGAGAGCAGTACGCCAGCAGCTACCGTGTGGTCAGCGTCTCACCCTCTGCACAGGACTGGCTGAATGGCAAGGAGTACAAG
 TGGCGGGTCTCCAACAAGGCCCTCCAGCCCCCATCGAGAAAACCATCTCCAAGGCCAAAGGGCAGCCCGAGAACACAGGTGTA
 CACCCTGCCCCATGTCCGGATGAGCTGACCAAGAACAGTCAAGCTGAGTGTGGTGGTGGTCAAGGCTCTTATCCAGCGCATCG
 CCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGGCTCCCGTGTGGACTCCGACGGCTCCTTCTTCTCT
 TATAGCAAGCTACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGCTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCA
 CTACACGCGAGAAGGCTCTCCCTGTCTCCGGTGGCGGTGGAGGTCCGGCGGTGGTGGATCCGAGGTGACGCTGTTGGATCTG
 GGGGAGGCTTGGTACAGCTCGGGGTCCTTGAGACTCTCTGTGACGCTCTGGAATCTCTCTCAGTAGGGGTACGACATGTGC
 TGGGTCCGCCAGGCTCCAGGGAAGTGCCTGGAGTGGATCGCATGCATTGCTGCTGGTAGTGCTGGTATCACTTACGACGCGAACTG
 GGCAGAAAGGCCGGTTCCACATCTCCGAGGACAATTCCAAGAACACGCTGTATCTGCAATGAACAGCCTGAGAGCCGAGGACACGG
 CCGTATATTACTGTGCGGATCGGGCTTTTCGTTTCGATACGCCATGGACCTCTGGGGCCAGGGAACCTTGTCACCGCTCTCGTCT
 GTGGAGGCGGTTCAGGCGGAGGTGGAAGTGGTGGTGGCGCTCTGAGGCGCGGATGCATTCAGATGACCAGTCTCCCTTC
 CACCTGTCTGCATCTGTAGGAGACAGAGTACCATCACTTGCCAGGCCAGTCAGAGCATTAGTTCCCACTTAAACTGGTATCAGC
 AGAAACAGGAGAAAGCCCTTAAGCTCTGATCTATAAGGCATCCACTTGGCATCTGGGGTCCCATCAAGGTTACGCGGCAGTGGA
 TCTGGGACAGAATTTACTCTACCATCAGCAGCCCTGCAGCTGATGATTTTGAACCTTATTACTGCCAACAGGGTTATAGTTGGG

>Sequence ID 173: SI-49PM1 Chain A Amino Acid Sequence

FLNSLFNQEVQIPLTESYCGPCPNWICYKNNCYQFFDESKNWYESQASCMSONASLLKVYSKEDQDLLKLVSYHWMGLVHIPTN
GSWQWEDGSIILSPNLITIEMQKGDICALYASSFKGYIENCSTPNTYICMQRTVGGGGSGGGGSGGGGSGGGGFLNSLFNQEVQIPL
LTESYCGPCPNWICYKNNCYQFFDESKNWYESQASCMSONASLLKVYSKEDQDLLKLVSYHWMGLVHIPTNGSWQWEDGSIILSP
NLITIIEMQKGDICALYASSFKGYIENCSTPNTYICMQRTVDDLGGGSGGGGSEVLVSEGGGLVQPGGSLRLSCAASGFTISTNAM
SWVRQAPGKGLEWIGVITGRDITYASWAKGRFTISRDNKNTLYLQMNLSLRAEDTAVVYCARDGGSSAITSNNIWGGQGLTVTVSS
ASTKPSVFPPLAPSSKSTGTAALGLVKDYFPEPVTVSNMGSALTSGVHTFPAVLQSSGLYLSLSVVTVFSSSLGTQTYICNVN
HKPSNTKVDKRVEPKSKDTHTCPPCAPEAGGSPSVLFLPPKPKDTLMSIRTEPVTCCVVDVSHEDPEVKFNWYVDGVEVHNAKT
KPREEQYASTYRVVSVLTVLHQDLWNGKEYKCAVSNKALPAIEKTIKSAKGQPREPQVCTLPPSRDELTKNQVLSLSCAVKGFPYS
DIAVEWESNGQFENNYKTPPVLDSDGSFFLVSKLTVDKSRWQQGNVFCSCVMHEALHNHYTQKSLSLSPGGGGSGGGGSRSLVE
SGGGLVQPGGSLRLSCGTASGFTISSYHMQWVRQAPGKGLCYIGTISGGNVYASSARGFTISRPSSQNTVDLQMNLSLRAEDTAV
YICARDSGSYDPMGGQGLTVTVSSGGGGSGGGGSGGGGSDVMTQSPSSVASGRDRTITCQASQNIPTYLSWYQQKPGK
APKLLIYAAANLASGVPSRFSGSGSGDTFTLISDLEPGAATYGYCOSTYLTDYVGAAGCGCTKVEIK

>Sequence ID 174: SI-49PM1 Chain A Nucleotide Sequence

TTTCTTAATTCCCTTTTCAACCAAGAGGTTGAGATCCCCTTGACTGAAAGCTATTGCGGCCCTTGTCCGAAAACTGGATATGTTA
CAAGAATAATTGTTACCAATTCTTCGACGAAAGCAAGAACTGGTATGAGAGTCAGGCGTCTTGATGAGTCAGAATGCCAGCCTGC
TTAAGGTTTATTCAAAGAAGACAGGATCTGCTTAAGTTGGTAAAGAGCTACCACTGGATGGGGCTGGTACATATCCCAACGAAT
GGGTGATGGCAGTGGGAGGACGGTCTATTCTGAGTCCAAATCTCTGACGATCATCGAAATGCAGAAAGGGGACTGTGCCCTGTA
TGCATCATCTTCAAGGGGTACATCGAGAACTGCAGTACCCCAAATACCTACATTTGTATGCAAAGAACGGTTGGAGGGCGGTGGCT
CAGGCGGAGGCGGCTCAGGAGGTTGGCGGTTGAGGAGGCGGCGGATCTTTCTAACTCATTATTTCAACCAAGAAAGTTCAAATTTCCC
TTGACCGAAAGTTACTGTGGCCCATGTCCTAAAACTGGATATGTTACAAAAATACTGCTACCAATTTTTTGATGAGAGTAAAAA
CTGGTATGAGAGCCAGGCTTCTTGATGTCTCAAATGCCAGCCTTCTGAAAGTATACAGCAAAGAGGACAGGATTTACTTAAAC
TGGTGAAGTCATATCATTGGATGGGACTAGTACACATTTCCAAACAAATGGATCTTGGCAGTGGGAGAGATGGCTCCATTCTCTACCC
AACCTACTAACAATAATTGAAATGCGAAGAGGAGACTGTGCACTCTATGCCCTCGAGCTTTAAAGGCTATATAGAAAAGTGTTCAC
TCCAAATACGTACATCTGCATGCAAAGGACTGTGGTTCGACGGCGGTGGAGGGTCCGGCGGTGGTGGATCAGAGGTGCAGCTGGTGG
AGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCATCAGTACCAATGCAATG
AGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGATCGGAGTCATTACTGGTCGTGATACACATACTACGCGAGCTGGGC
GAAAGGCAGATTACCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTTCAAATGAACAGCCTGAGAGCCGAGGACACGGCTG
TGTATTACTGTGCGAGAGAGAGGTTGGTCTTCTGCTATTACTAGTAACAACTTTGGGGCCAGGGAACCTCGGTCCTCTCA
GCTAGCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGT
CAAGGACTACTTCCCCGAACCGGTGACGGTGTCTGGAACCTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCTTAC
AGTCTCTCAGGACTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAAT
CACAAGCCCGAGCAGACCAAGGTTGACAAGAGAGTTGAGCCCAATCTGTGACAAAACTCACACATGCCACCGTCCCGAGCAC
TGAAGCCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACACCCCTCATGATCTCCCGGACCCCTGAGGTACAT
GCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACA
AAGCCGCGGGGAGGAGCAGTACGCCAGCACGTACCGTGTGGTTCAGCGTCTCACCGTCTGCAACAGGACTGGCTGAATGGCAAGGA
GTACAACTACACGAGAGACTTGGTATAGTGATCTTATGTGGGGCCAGGGAACCTCTCCAAAGCCAAAGGCGAGCCGAGAACAC
AGGTGTGTACCTTCCCCCATCCCCGGATGAGCTGACCAAGAACCAGGTGAGCCTGTCTGCGCCGTCAAAGGCTTCTATCCCAGC
GACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCGGAGAACAACTACAGAACACGCTCCCGTGGTGGACTCCGACGGCTCCTT
CTTCTCTGTGAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGC
ACAACCACTACACGAGAGACTTGGTATAGTGATCTTATGTGGGGCCAGGGAACCTGGTCAACCTCTCTCAGGCGGTGGCGGTAG
TCTGGGGGAGGCTTGGTCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTACTGCCTCTGGATTACCATCAGTAGCTACCATGCA
GTGGGTCCGGCAGGACCTGGGAAGTGCCTGGAGTACATCGGAACCATTAGTAGTGGTGGTAATGTATACTACGCAAGTCCCGTA
GAGGCGAGTTACCATCTCCAGACCTCTGTCGAAGAACCGGTGGATCTTCAAATGAACAGCCTGAGAGCCGAGGACACGGCTGTG
TATTACTGTGCGAGAGACTTGGTATAGTGATCTTATGTGGGGCCAGGGAACCTGGTCAACCTCTCTCAGGCGGTGGCGGTAG
TGGGGGAGGCGGTTCTGGCGGCGGAGGTTCCGGCGGTGGAGGATCAGACGTTGTGATGACCCAGTCTCCATCTTCCGTGTCTGCAT
CTGTAGGAGACAGAGTCACCATCACCTGTGAGGCCAGTCAGAACATTAGGACTTACTTATCCTGGTATCAGCAGAAACAGGGAAA
CCCCCTAAGCTCCTGATCTATGCTGCAGCAATCTGGCATCTGGGGTCCCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTT
CACTCTCACCATCAGCGACTTGGAACTTGGAACTTACTATTTGTAGTCTACCTATCTTGGTACTGATTATGTTGGCG
GTGCTTTCCGCTGTGGGACCAAGGTGGAGATCAAATGA

>Sequence ID 175: SI-49PM1 Chain B Amino Acid Sequence

ENVLTQSPASLSASPGERVITITCSASSSVSYMHWYQQKPGQAPKLIYDTSKLASGVPSRFSGSGSGNDHTLTISSMEPEDFATYY
CFQGSVYPFTFGQGTQVTVLGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSDV
LEWLAIHWDDDKRYPALKSRITISKDTSKNQVYLQMSLDAEDTAVYYCARMELWSYFDYWGQGLTVTVSSGGGGSGGGGSGGGGSDV
VMTQSPSTLSASVGRVITINQASESISWLAHYQQKPGKAPKLLIYEASKLASGVPSRFSGSGSGTEFTLTISLQPDDFATYYC
QGYFYFISRTYVNSFGGGTKEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSK
DSTYLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGECGDKTHTCPCPAPEAAGGPSVFLFPPKPKDTLMI SRTPEV
TCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPRE
PQVYTLPPSRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFCFSVMHEA
LHNRTQKSLSLSPGGGGSGGGGSDIQMTQSPSTLSASVGRVITITCQASQSISSHLNHYQQKPGKAPKLLIYKASTLASGVPSR
FSGSGSGTEFTLTISLQPDDFATYYCQGYYSWGNVDNFGGGTQVTVLGGGGSGGGGSGGGGSGGGGSEVQLLESGLVQPGGS
LSLSCAASGFSFSSGYDMCVWRQAPGKGLEWIIACIAAGSAGITYDANWAKGRFTISRDNSKNTLYLQMSLRAEDTAVYYCARSAF
SFDYAMDWLGQGLTVTVSS

>Sequence ID 176: SI-49PM1 Chain B Nucleotide Sequence

GAAATGTATTGACACAGAGCCCCGCTCCCTCAGTGCCTCACCTGGGGAAAGGGTAACATATCACTTGCTCTGCATCAAGCAGCGT
CTCATACATGATTGGTATCAACAAAAGCCTGGACAGGCCCCAAGCTCTGGATATACGATACGAGCAAGCTGGCTTCCGGCGTAC
CTAGCCGCTTCAAGTGGTCCGGCTCAGGCAACGATCACACCCCTTACGATTTCAGTATGGAACCCGAAGATTTTGCAACTATTAT
TGTTTCCAGGGGAGCGTGTACCAATTCACTTTCGGGCAGGGGACAAAAGTGACCGTCTTAGGCGGTGGCGGTAGTGGGGGAGCGG
TTCTGGCGGCGGAGGTCGGCGGTGGAGGATCAGAGTCACTTGAAGGAATCTGGCCCCGGCCTTGTTACGCCAGGACAGACCC
TTAGCCTCACCTGTGCCTTCAAGTGGTTTTTCTCTTAGCACTAGCGGTATGGGGTGGCTGGATTCGGCAGCCTCCCGGCAAGGT
CTTGAGTGGTGGCTCACATTTGGTGGGACGACGACAAACGGTATAATCCTGCCTTGAAAAGTGGCTGACCATTAGTAAGGATAC
CTCAAAAATCAAGTGACTTGAATGAATAGCCTTGACCGGAGGATACGGCTGTATATTATGCGCGCGGATGGAACTCTGGT
CTTACTACTTTGATTATTGGGGGAGGGGACTCTCGTCAGGCTCTCAGCGCGGTGGAGGGTCCGGCGGTGGTGGATCAGACGTC

GTGATGACCCAGTCTCCTTCCACCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCAATTGCCAAGCCAGTGAGAGCATTAGCAG
 TTGGTTAGCCTGGTATCAGCAGAAACAGGGAAAGCCCCTAAGTCTCTGATCTATGAAGCATCCAACTGGGCATCTGGGGTCCCAT
 CAAGGTTACGCGGAGTGGATCTGGGACAGAATTCACCTCACCATCAGCAGCCTGCAGCCTGATGATTTTCAACTTATTACTGC
 CAAGGCTATTTTATTTTATTTAGTCTGTAATCTTCTTCGGCGGAGGGACCAAGGTGGAGATCAAACGTACGGTGGCTGC
 ACCATCTGTCTTCATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTTGTGTGCCTGCTGAATAACTTCTATC
 CCAGAGAGGCCAAAGTACAGTGGAGGTGGATAACGCCCTCCAATCGGGTAACTCCAGGAGAGTGTACAGAGCAGGACAGCAAG
 CAGACACCTCAGCCTCAGCAGCACCTGACGCTGAGCAAAGCAGACTACGAGAAACACAAAGTCTACGCTGCGAAGTCAACCA
 TCAGGCTGAGCTCGCCCTCACAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGACAAAACACACATGCCACCTGCGCCAG
 CACCTGAAGCGCGGGGGGACCGTCAGTCTCTCTTCCCCCAAAACCAAGGACACCTCATGATCTCCGGACCCCTGAGGTC
 ACATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATATGCCAA
 GACAAAGCGCGGGAGGAGCAGTACAACAGCAGTACCGTGTGGTCAGCGTCTCACCCTCTGCACAGGACTGGCTGAATGGCA
 AGGAGTACAAGTGCAGGCTCTCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCAAAGCCAAAGGGCAGCCCCGAGAA
 CCACAGGTGTACACCTGCCCCCAAGCGGGGATGAGCTGACCAAGAACAGGTGAGCCTGTGGTGCCTGGTCAAGGCTTCTATCC
 CAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCGAGCGGAGAACACTACAAGACCAGCCTCCCGTGTGGACTCCGACGGCT
 CCTTCTCTCTTACAGCTCACCCTGAGCAAGAGCAGGTGAGCAGGGGAGCGTCTTCTCATGCTCCGTGATGCTGAGGCT
 CTGCACAACAGATTACGCAGAAGAGCCTCTCCCTGTCTCCGGGTGGCGGTGGAGGTCGGCGGTGGTGGATCCGACATTGAGAT
 GACACAGTCAACCTGACCTCTCAGCCTCAGTAGGCGATAGGGTGACTATCACCTGCCAAGCCTCCCAATCTATAAGTTACACCT
 TCAACTGGTATCAACAGAAACCCGGTAAAGCACCAGAGTGTCTCATCTACAAGGCATCAACTCTTGCCCTCAGGTGTGCCTAGTCGC
 TTCTCCGGGAGCGGCTCCGCTACTCAGTTTACTTTGACAGTGTCTCCCTCCAACCCGAGACTTCGCACCGTATGCTGAGGCT
 GGTATAGTTGGGAAATGTTGACAATGTGTTTGGAGGGGAGCGAAAGTGAAGTGTGTTGGAGGGGGAGGAAGTGGCGCGCGCG
 GAAGCGGAGGTGGTGGCTCCGCGCGGGGTGGAAGCGAAGTGAATGCTCGAAAGTGGTGGCGGACTTGTGCAACCTGGTGAAGC
 CTCTCACTCTCTTGGCGCGGAGTGGTTTTAGCTTCACTAGCGGCTACGATATGTGCTGGGTAAAGCAGGCTCCTGGTAAAGCCCT
 TGAGTGGATTGCTGTATCGCCCGCGGGTCTGCTGGTATACATACGATGCAAACTGGCGGAAAGGGCGCTTCAACTTCAAGGG
 ACAACTCAAAAATACATTGTACCTCCAGATGAATAGCTGAGAGCCGAAGACACCGCAGTCTACTATTGCGCAAGGTGAGCATTT
 AGCTTCGATTATGCAATGGATCTTTGGGGCCAGGGGACGCTCGTACCGTCTCATCTTGA

>Sequence ID 177: SI-49P9 Chain A Amino Acid

EIVMTQSPSTLSASVGDRIITCQASESISWLAWYQKPKAPKLLIYEASKLASGVPSRFSGSGSGAEFTLTISLQPDFFATY
 YCQGYFYFISRTYVNSFGCGTKLTVLGGTSGSGSKPGSGEGSTKGEVQLVESGGGLVQPGGSLRLSCTASGFTISTNAMSWSVRQAPG
 KCLEWVGVIITGRDITYYASWAKGRFTISRDTSKNTVYLMNSLRLEDTAIVYYCARDGGSSAITSNIIWQGTTLTVSTGGGSGGG
 GSFLNSLFNQEVQIPLTESYCGPCPNWICYKNNCYQFFDESKNYESQASCMQNASLLKVYSKEDQDLLKLVKSYHWMGLVHIP
 TNGSWQWEDGSI LSNLLTIIEMQKGDALYASSFKGYIENCSTPNTYICMQRVASTKGPSVFPLAPSSKSTSGGTAALGCLVKD
 YFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKHTHTCPPCPAPEA
 AGGPFVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREQYASTYRVVSVLTVLHQDWLNGKEYK
 CAVSNKALPAPIEKTIKAKGQPREPQVCTLPPSRDELTKNQVLSLCAVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFL
 VSKLTVDKSRWQQGNVFCSSVMHEALHNHYTQKSLSLSPGGGGGSGGGGSGREGPELSPDDPAGLLDLRQGMFAQLVAQNVLLIDGP
 LSWYSDPGLAGVSLTGGLSYKEDTKELVVAAGVYVVFQLELRRVVGEGSGSVSLALHLQPLRSAAGAAALALTVDLPASSEA
 RNSAFGFQGRLLHLHLSAGQRLGVHLHTEARARHAWQLTQGVTLGLFRVTPETI PAGLGSTSGSGSKPGSGEGSTKREGPELSPDDFA
 GLLDLRQGMFAQLVAQNVLLIDGPLSWYSDPGLAGVSLTGGLSYKEDTKELVVAAGVYVVFQLELRRVVGEGSGSVSLALHLQ
 PLRSAAGAAALALTVDLPASSEARNSAFGFQGRLLHLHLSAGQRLGVHLHTEARARHAWQLTQGVTLGLFRVTPETI PAGLGGGGSG
 GGGSGREGPELSPDDPAGLLDLRQGMFAQLVAQNVLLIDGPLSWYSDPGLAGVSLTGGLSYKEDTKELVVAAGVYVVFQLELRRV
 VAGEGSGSVSLALHLQPLRSAAGAAALALTVDLPASSEARNSAFGFQGRLLHLHLSAGQRLGVHLHTEARARHAWQLTQGVTLGLF
 RVTPEIPAGL

>Sequence ID 178: SI-49P9 Chain A Nucleotide Sequence

GAGATCGTGATGACACAATCTCCATCTACGCTCTCCGCCTCAGTGGCGGATAGAGTAATTATTACTTGTCAAGCCTCAGAGAGCAT
 TTCATCATGGCTCGCCTGGTATCAGCAAAAGCCTGGGAAGGCCCCAAACTTCTCATCTATGAAGCATCAAAGCTGGCCTCTGGGG
 TTCCGTCTCGCTTCTCCGGGTCCGGCAGTGGTGCAGAGTTACGTTGACTATATCTTCTTTGCAACCTGACGATTTGCAACATAT
 TATTGCCAGGGATACTTTTATTTTATTTTCCGAACATATGTTAACTCTTTTGGGTGCGGGACCAAACCTCACTGTGCTGGGGTCTAC
 CGGTAGTGGTCTTAAGCCTGGTTCAGGCGAAGGCAGTACGAAAGGGGAAGTGAACCTGGTGAAGCGGTGGAGGGCTTGTTCAC
 CTGGAGGAAGCCTCCGCTTGTCTGCACGGCTAGCGGCTTTACAATAAGTACGAACGCCATGAGCTGGGTCCGGCAGGCTCCAGGT
 AAGTGTCTCGAATGGGTGGGGGTCTAACAGGCAGGGAATTACCTACTACGCCAGTTGGGCCAAGGGTCACTTACCATTTCTAG
 AGATACATCCAAGAACCGGTGTACCTCCAGATGAATCTCTTAGGGCGGAAGACACAGCAGTATACTACTGCGCGCAGAGTGGCG
 GGAGCAGTGCATCATCCAACAACATCTGGGGTCAGGGCACTCTGTGACGGTGTGCACTGGCGGTGGAGGGTCCGGCGGTGGT
 GGATCATTTCTTAATTCCCTTTTCAACCAAGAGGTTCAATCCCCCTGACTGAAAGCTATTGCGGCCCTTGTCCGAAAACTGGAT
 ATGTTTACAAGAATAATTGTTACCAATTCTTCGACGAAAGCAAGAACTGGTATGAGAGTCAGGCGTCTTGTATGAGTCAGAATGCCA
 GCCTGCTTAAGGTTTATTCAAAGAAGACCAGGATCTGCTTAAGTTGGTAAAGAGCTACCACTGGATGGGGCTGGTACATATCCCA
 ACGAATGGGTGATGCGAGTGGGAGGACGGTCTATTTCTGAGTCCAAATCTCCTGACGATCATCGAAATGCAGAAAGGGGACTGTGC
 CCTGTATGCATCATCTTCAAGGGGTACATCGAGAACTCGAGTACCCCAATACCTACATTTGTATGCAAGAAGCGGTGTGCTAGCA
 CCAAGGGCCATCGGTCTTCCCTGGCACCTCCTCAAGAGCACTCTGGGGGCACAGCGGCCCTGGTCAAGGCTGGTCAAGGAC
 TACTTCCCCGAACCGGTGACGGTGTCTGGAACTCAGGCGCCCTGACCAGCGCGGTGCACACCTTCCGGCTGTCTACAGTCTCTC

AGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGC
CCAGCAACACCAAGGTGGACAAAGAGATTGAGCCCAAATCTTGTGACAAAACCTACACATGCCACCGTGCCAGCACCTGAAGCC
GCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAACCCAAAGGACACCCCTCATGATCTCCCGGACCCCTGAGGTACATGCGTGGT
GGTGACGTGAGCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGC
GGGAGGAGCAGTACGCCAGCAGTACCGTGTGGTCAGCGTCTCACCCTGCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAG
TGCGCGGTCTCCAAACAAAGCCCTCCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGGAGCCCCGAGAACACAGGTGTG
TACCCTGCCCCATCCGGGATGAGCTGACCAAGAACCAGGTGAGCCTGTCTGCGCCGTCAAAGGCTTCTATCCAGCGACATCG
CCGTGGAGTGGGAGAGCAATGGGCAGCCGAGAAACACTACAAGACCACGCTCCCGTGTGGACTCCGACGGCTCCTTCTCTCTC
GTGAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCA
CTACACGCAGAAGACCTCTCCCTGTCTCCGGGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCCCGAGAGGGCCCCGAGCTGTCTC
CTGATGACCCAGCAGGCGCTTGGACTTGGCGCAGGGTATGTTCTGCTCAACTTGTGGCTCAGAATGTTTCTGCTCATTGATGGACCA
CTCTCTTGGTATAGTGACCCCGGTCTGGCCGGGGTGAGTCTGACCGCGGGCTCTCTTATAAAGAGGATACTAAGGAACTGGTCGT
AGCAAAAGCGGGCGTTTATTACGTTTTTTTTTTCAGCTGGAGCTCAGGCGCGTGGTGGCCGGCAGGGCAGTGGCTCTGTCTCCCTGG
CCCTGCACTTACAGCCCTTGAAGCGCTGCAGGTGCTGCCGCACTGGCTTTAACTGTTGACCTCCCTCCGGCTCTTCTGAAGCT
AGAAACAGCGCTGGGAGGCAACAGTGTGCTGACCTGAGGCAAGGACAGCCAGCGCTTAGGTGTGACCTTCTACAGGCGCAG
GGCCCGACACGCTTGGCAGCTCACACAGGGTGCCACGGTTCTCGGACTTTTCCGCGTTACTCCCGAGATCCCCGCTGGCCTCGGAA
GTACTGGTTCTGGGTCTAAACCCGGTTCGGCGAAGGTAGTACTAAAGGACGAGAAGGGCCAGAGTTAAGTCCAGATGACCCTGCT
GGGCTTTTGGACCTGCGGCAGGGCATGTTGCTCAACTGGTGGCTCAGAACGTGCTGCTGATCGATGGCCCCCTGAGTTGGTACAG
CGATGACCGCTTGGGAGGCAACAGTGTGCTGGGTCTTCCGCGTGACTCTGAAATACAGCTGGACTTGGCGGTGGAGGCAGCGCG
TGTATTACGTGTTCTTCAACTGGAGCTGAGAAGGGTGTGGCAGGAGAGGGTAGCGGCAGCGTGTCTTTAGCCCTTCACTTGCAG
CCCCGAGGTCTGCTGCAGGTGCAGCCGCTCTCGCGCTCACCCTGGATCTCCCCCAGCCCTCATCTGAAGCTAGGAACAGTGCATT
TGGCTTTTCAAGGACGCTTGTGCACTCTCCGCTGGACAGAGGTGGGCGTGCACCTTACACAGAGGCCCGTCCAGGCATGCAT
GGCAGCTCAGCTCAGGGGGCAACAGTGTGCTGGGTCTTCCGCGTGACTCTGAAATACAGCTGGACTTGGCGGTGGAGGCAGCGCG
GGAGGAGGATCTCGTAGGGGGCCAGAAGTGTCCCCGATGACCCAGCCGACTGCTCGATCTCAGACAGGGCATGTTGCTCAGCT
TGTAGCCCAAAATGTCCTCTGATGACGGCCCTTTCAGCTGGTATAGTGATCCCGCTTGGCCGGGGTATCTCTGACCGGAGGCC
TCTCTACAAGGAAGACACCAAGAGCTGGTGGTGGCAAAGCGGGGGTGTATTATGTGTTCTTTCAGCTCGAGCTGCGGAGAGTT
GTGGCCGGGGAAGGTCTGGGAGCGTATCTCTTGCACTTCACTGCAGCCCTGCGCAGCGCCGCTGGAGCCCGCCCTTGTCTCT
TACTGTGGATCTGCCTCTGCTTCTCAGAAGCAGCAACAGCGCTTCCGCTTCAAGGACGTCTCTGCACTTGTCCGAGGAC
AGAGGTTGGGCGTCCATTTACACACTGAGGCACGGGCACGGCAGCTTGGCAGTTACCCAGGGAGCCACCGTGTGGGACTCTTT
AGAGTGACACCCGAGATCCCCGCTGGCTTGTA

>Sequence ID 179: SI-49P9 Chain B Amino Acid Sequence

ENVLTQSPASLSASPGERVITITCSASSSVSYMHWWYQKPGQAPKLWIYDTSKLSAGVPSRFSGSGSNDHTLTISSEMPEDFATYY
CFQGSVYPFTFGQGTKLEIKGSTGSGSKPGSGEGSTKGQVTLKESGPGVLVQPGQTLRLTCAFSGFSLSSTSGMGVWIRQPPGKLE
WLAHIWDDDKRYNPALKSRLTISKDTSKNQVYLMNSLDAEDTAVYYCARMELWSYFDYWGQGLTVTVSTGGGGSGGGGSFLNS
LFNQEVQIPLTESYCGPCPNWICYKNNCYQFFDESKNWEYSQASCMQNASLLKVYSKEDQDLKLKLVKSYHWMGLVHIPTNGSWQ
WEDGSI LSPNLLTIEMQKGDICALYASSFKGYIENCSTPNTYICMQRTVRTVAAPSVFIFPPSDEQLKSGTASVVLNLFYPREA
KVQWVDNALQSGNSQESVTEQDSKDSYLSSTLTLSKADYEKHKVYACEVTHQGLSPVTKSFNRGECGGDKTHCTPCPAPEA
AGGPSVFLFPPKPKDLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDNLNGKEYK
CAVSNKALPAPIEKTI SKARGQPREPQVYTLPPCRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTPFPVLDSGGSFFL
YSKLTVDKSRWQQGNVFSQSVSMHEALHNHYTQKSLSLSPGGGGSGGGGSEVQLLESGLLVQPGGSLRLSCAASGFSFSSGYDMC
WVRQAPGKCLEWIAICAAAGSAGITYDANWAKGRFTISRDNKNTLYLQMNLSRAEDTAVYYCARSAFSDYAMDWLWGQGLTVTVSS
GGGGSGGGSGGGSGGGSDIQTQSPSTLSASVGRVITTCQASQSISSHLNWWYQKPGKAPKLLIYKASTLASGVPSRFSGSG
SGTEFTLTISLQPDFFATYYCQGGYSWGNVDNVFGCGTKVEIK

>Sequence ID 180: SI-49P9 Chain B Nucleotide Sequence

GAAATGTATTGACACAGAGCCCCGCTCCCTCAGTGCCTCACTGGGGAAAGGGTAACTATCACTTGCTCTGCATCAAGCAGCGT
CTCATACGATGCATTGGTATCAACAAAAGCCTGGACAGGCCCCCAAGCTCTGGATATACGATACGAGCAAGCTTGCTTCCGGCGTAC
CTAGCCGCTTCAGTGGTTCGGGCTCAGGCAACGATCACACCTTACGATTTCAGTATGGAACCCGAAGATTTTGCAACTATTAT
TGTTTCCAGGGGAGCGTGATCCCATTCATTTCCGGCAGGGGACAAAATGGAGATAAAGGGAAGTACTGGTTCGGGTCTAAACC
CGGTTCCGGCGAAGGTAGTACTAAAGGACAGGTACATTTGAAGGAATCTGGCCCCGGCCTTGTTCAGCCAGGACAGACCTTAGGC
TCACTGTGCCTTTCAGTGGTTTTTCTCTTAGCACTAGCGGTATGGGGTGGGCTGGATTCCGGCAGCCTCCCGGCAAGGTCTTGAG
TGTTTGGCTCACATTTGGTGGGACGACGACAAACGGTATAATCTGCCTTGAAAAGTCGGCTGACCATTAGTAAGGATACCTCAAA
AAATCAAGTGTACTTGCAATGAATAGCCTTGACGCCGAGGATACGGCTGTATATTATGCGCGCGGATGGAACCTCTGCTCTTACT
ACTTTGATTATTGGGGGACAGGGGACTCTCGTCACGGTGTGCACTGGCGGTGGAGGGTCCGGCGGTGGTGGATCATTCCTAAACTCA
TTATTCAACCAAGAAGTTCAAATTCCTTGACCGAAAGTTACTGTGGCCCATGCTCAAAAACCTGGATATGTTACAAAAATAACTG
CTACCAATTTTTGATGAGAGTAAAACTGGTATGAGAGCCAGGCTTCTGTATGTCTCAAAATGCCAGCCTTCTGAAAGTATACA
GCAAAGAGGACAGGATTTACTTAACTGGTGAAGTCATATCATTGGATGGGACTAGTACACATTCACAAATGGATCTTGGCAG
TGGGAAGATGGCTCCATTCTCACCCAACTACTAACAATAATTGAAATGCAGAAGGGGAGCTGTGCACTCTATGCCTCGAGCTT
TAAAGGCTATATAGAAAACGTTCAACTCCAATACGTACATCTGCATGCAAGGACTGTGCGTACGGTGGCTGCACCATCTGTCT
TCATCTTCCCGCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTTGTGTGCTGTAATAACTTCTATCCAGAGAGGCC

AAAGTACAGTGAAGGTGGATAACGCCCTCCAATCGGGTAACTCCCAGGAGAGTGTACAGAGCAGGACAGCAAGGACAGCACCTA
CAGCCTCAGCAGCACCTGACGCTGAGCAAAGCAGACTACGAGAAACACAAAGTCTACGCTGCGAAGTCACCCATCAGGGCCTGA
GCTCGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGACAAACTCACACATGCCACCGTGCCAGCACCTGAAGCC
GCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAACCCAAAGGACACCTCATGATCTCCCGACCCCTGAGGTACATGCGTGGT
GGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGC
GGGAGGAGCAGTACGCCAGCAGTACCGTGTGGTCAAGCTCCTCACCCTGCTGACACAGGACTGGCTGAATGGCAAGGAGTACAAG
TGCGGGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGTAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCCAGGTGTA
CACCCTGCCCCATGTCCGGATGAGCTGACCAAGAACAGGTCAAGCCTGTGGTGCTGGTCAAAGGCTTCTATCCAGGACATCG
CCGTGGAGTGGGAGAGCAATGGGCAGCCGAGAACAACTACAAGACCACGCTCCCGTGTGGACTCCGACGGCTCCTTCTTCTC
TATAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGACGCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCA
CTACAGCAGAAAGACCTCTCCCTGTCTCCGGGTGGCGGTGGAGGGTCCGCGGTGGTGGATCCGAGGTGCAGCTGTTGGAGTCTG
GGGGAGGCTTGGTACAGCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCTCCTTCAGTAGCGGGTACGACATGTGC
TGGGTCCGCCAGGCTCCAGGGAAGTGCCTGGAGTGGATCGCATGCATTGCTGCTGGTAGTGCTGGTATCACTTACGACCGGAATG
GGCGAAAGGCCGTTACCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTGCAATGAACAGCCTGAGAGCCGAGGACACGG
CCGTATATTAGTGTGCGAGATCGGGCTTTTCTGTTGAGTACGACCTGGACCTCTGGGGCCAGGGAACCTGGTCAACGCTCTCGTCT
GGTGGAGGCGGTTACAGGCGGAGGTGGAAGTGGTGGTGGCGGCTCTGGAGGCGCGGATCTGACATCCAGATGACCCAGTCTCCTTC
CACCCTGTCTGCATCTGTAGGAGACAGAGTCAACCATCACTTGCCAGGCGAGTCAAGCATTAGTTCCTTAACTTAACTGGTATCAGC
AGAAACCAGGGAAGCCCTAAGCTCCTGATCTATAAGGCATCCACTCTGGCATCTGGGTCCCATCAAGGTTGAGCGGAGTGGGA
TATGGGACAGAATTTACTCTACCATCAGCAGCCTGCAGCCTGCAACTTATTACTGCCAACAGGGTTATAGTTGGGG
TAATGTTGATAATGTTTTCCGGCTGCGGGACCAAGGTGGAGATCAATAG

>Sequence ID 181: SI-1C3 Heavy Chain Amino Acid Sequence

QVQLQESGPGLVKPKSETLSLTCTVSGSVSSGDYVWTRQSPGKLEWIGHIYSGNTNYPNPKSLRSLTISIDTSKTQFSLKLSS
VTAADTAIYYCVRDRVTGAFDIWGGTMVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTF
PAVLQSSGLYSLSSVTVPSSSLGQTQYICNVNHKPSNTKVDKRVPEKSCDKHTHTCPPCPAPELGGPSVFLFPPKPKDTLMISRT
PEVTQVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTI SKAKGQ
PREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFSQSV
HEALHNHYTQKSLSLSPGK

>Sequence ID 182: SI-1C3 Heavy Chain Nucleotide Sequence

CAGGTGCAGCTGCAGGAGTCCGGGCCAGGACTGGTGAAGCCTTCGGAGACCCTGTCCCTCACCTGCACTGTCTCTGGTGGCTCCGT
CAGCAGTGGTGATTACTACTGGACCTGGATCCGGCAGTCCCCAGGGAAGGGACTGGAGTGGATTGGACACATCTATTACAGTGGGA
ACACCAATTATAACCCCTCCCTCAGAGCCGACTCACCATATCAATTGACACGTCCTCAAGACTCAGTTCTCCCTGAAGCTGAGTTCT
GTGACCGCTGCGGACACGGCCATTTATTACTGTGTGCGAGATCGAGTGAAGTGGTCTTTTGATATCTGGGGCCAAAGGACAATGGT
CACCCTCTCGAGCGTAGCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCAAGAGCACCTCTGGGGGCACAGCGGCC
TGGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCTGTGGAAGTCAAGGCGCCCTGACAGCGCGCTGCACACCTTC
CCGGCTGTCTTACAGTCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCAACCCAGACCTACAT
CTGCAACGTGAATCACAAGCCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAATCTTGTGACAAAACCTCACACATGCCCAC
CGTGCCACAGCCTGAACCTCTGGGGGACCGTCACTCTTCTTCCCCCAAACCCAAAGGACACCTCATGATCTCCCGGACC
CCTGAGGTCAATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCA
TAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCAGTACCGTGGTGGTCAAGCTCCTCAGCGTCCCTCAGCGTGGTGGT
TGAATGGCAAGGAGTACAAGTGAAGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAG
CCCCGAGAACCACAGGTGTACACCTGCCCCATCCCGGGAGGAGATGACCAAGAAGAGGTGAGCCTGACCTGCTGGTCAAAGG
CTTCTATCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGAGAGCAACTACAAGACCACGCTCCCGTGTGGAGT
CCGACGGCTCCTTCTCTCTATAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATG
CATGAGGCTCTGCACAACCACTACACGAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA

>Sequence ID 183: SI-1C3 Light Chain Amino Acid Sequence

DIQMTQSPSSLSASVGDRVTITCQASQDISNYLNWYQQKPKGKAPKLLIYDASNLETGVPSTRFSGSGSGTDFTFTISSLPEDIATY
FCQHFHDLPLAFGGGTGKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDS
YLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

>Sequence ID 184: SI-1C3 Light Chain Nucleotide Sequence

GACATCCAGATGACCCAGTCTCCATCCTCCTGTCTGCATCTGTAGGAGACAGAGTCAACATCACTTGCCAGGCGAGTCAAGACAT
CAGCAACTATTTAAATTGGTATCAGCAGAAACAGGGAAAGCCCTAAACTCCTGATCTACGATGCATCCAATTTGGAAACAGGGG
TCCCATCAAGGTTCAAGTGAAGTGGATCTGGGACAGATTTACTTTTCAACATCAGCAGCCTGCAGCCTGAAGATATTGCAACATAT
TTCTGTCAACACTTTGATCATCTCCCGCTCGCTTTCGGCGGAGGACCAAGGTGGAATTAACGTACGGTGGCTGCACCATCTGT
CTTCATCTTCCCGCATCTGATGAGCAGTTGAAATCTGGAACGCTCCTGTTGTGTGCTGCTGAATAACTTCTATCCAGAGAGG
CCAAAGTACAGTGAAGGTGGATAACGCCCTCCAATCGGGTAACTCCCAGGAGAGTGTACAGAGCAGGACAGCAAGGACAGCAC

TACAGCCTCAGCAGCACCTTGACGCTGAGCAAAGCAGACTACGAGAAACACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCT
GAGCTCGCCGCTCACAAGAGCTTCAACAGGGGAGAGTGTATG

>Sequence ID 185: SI-1C7 Amino Acid Sequence

EPKSSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYR
VVSVLTVLHQLDNLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQP
ENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVSCSVMHEALHNYHQKSLSLSPGGGGSGGGGSQVQLQESGGGLVKPQGS
LRLSCAASGFTFSYWMWVRQAPGKGLEWVANINRDGSASYVDVSVKGRFTISRDDAKNSLYLQMNSLRAEDTAVYYCARTDGVG
YFDLWGRGTLTVTVSSGGGGSGGGSGGGGSQSALTQPASVSGSPQSIITISCTGTS SDVGGYNFVSWYQQHPGKAPKLMIVDVS
PSGVSDFRFSKSGNTASLIISGLQADDEADYYCSSYSSSTHVFVGGGTVKTVL

>Sequence ID 186: SI-1C7 Nucleotide Sequence

GAGCCCAAACTCTCCGACAAAACACACATGCCACCGTGCCAGCACCTGAACTCCTGGGGGACCGTCAGTCTTCTCTTCCC
CCCAAAACCAAGGACACCTCATGATCTCCCGGACCCCTGAGGTACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCCTGAGG
TCAAGTTCAACTGGTACGTGGACGCGGTGGAGGTGCATATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGT
GTGGTCAGCGTCTCACCCTGCTGCACCAAGGACTGGCTGAATGGCAAGGAGTACAAGTGAAGGTCTCCAACAAAGCCCTCCCAGC
CCCCATCGAGAAAACCATCTCCAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCCTGCCCCCATCCCGGGATGAGCTGA
CCAAGAACCAGGTGAGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCG
GAGAAACAATACAAGACCAAGCCTCCCGTGTGGACTCCGACGGCTCCTTCTCTCTATAGCAAGCTCACCCTGGACAAAGAGCAG
GTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTC
CGGGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCCAGGTGCAGCTGCAGGAGTCCGGGGGAGGCTGGTCAAAGCTGGAGGGTCC
CTGAGACTCTCCTGTGCAGCCTCTGGATTACCTTTAGTAGTTATTGGATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGA
GTGGGTGGCCAACTAAACCGCGATGGAAGTGCGAGTTACTATGTGACTCTGTGAAGGGCCGATTCAACATCTCCAGAGACGACG
CCAAGAACTCACTGTATCTGCAATGAACAGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAGATCGTGGGGTGGGC
TACTTCGATCTCTGGGGCCGTGGCACCCCTGGTCAACGCTCTCGAGCGGTGGAGGCGGTTCAAGCGGAGGTGGTTCGGCGGTGGCGG
CTCCAGTCTGCCCTGACTCAGCCTGCCTCCGTGTCTGGGTCTCCTGGACAGTCGATCACCATCTCCTGCACTGGAACCAAGCAGTG
ACGTTGGTGGTTATAACTTTGTCTCTGTTACCAACAACCCAGGCAAGCCCCAACTCATGATCTATGATGTGATGATCGG
CCCTCAGGGGTGTCTGATCGCTTCTCCGGCTCCAAGTCTGGCAACACGGCTCCCTGATCATCTCTGGCTCCAGGCTGACGACGA
GGCTGATTATTACTGCAGTCATATGGGAGCAGCAGCACTCATGTGATTTTCGGCGGAGGGACCAAGGTGACCGTCCTATAA

>Sequence ID 187: SI-9C21 Heavy Chain Amino Acid Sequence

EVQLVESGGGLVQPGGSLRLSCTASGFTISTNAMSWVRQAPGKLEWVGVITGRDITYYASWAKGRFTISRDTSKNTVYLQMNLSR
AEDTAVYYCARDGSSAITSNNIWQGTILTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPTVSWNSGALTSGVHT
FPAVLQSSGLYSLSVVTVSSSLGTQTYYCNVNHKPSNTKVDKRVPEPKSCDKHTHTCPPCPAPEAAGAPSVFLFPPKPKDTLMIS
RTPETVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKG
QPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVSCSV
MHEALHNYHQKSLSLSPG

>Sequence ID 188: SI-9C21 Heavy Chain Nucleotide Sequence

GAAATCCAATTGGTAGAAAGTGGCGGTGGTCTGGTGCAACCTGGTGGATCTCTTCGCCTCTCATGCACGGCTAGTGGCTTTACTAT
TTCAACTAATGCGATGAGCTGGGTTCGCCAGGCCCCGGCAAAGGACTTGAGTGGGTGGCGTCATCACCAGGACGGGACATTACAT
ACTATGCGAGTTGGGCAAAGGGCAGGTTACGATTAGCCGCACTTCAAAGAATACCGTTTACCTTCAAATGAATAGCTTGCGC
GCGGAAGACACAGCTGTGTATTACTGCGCGCGGGATGGAGGTAGTTCGCCATAACTTCCAACAACATATGGGGACAAGGCACGCT
GGTTACTGTGTCGTAGCTAGCACCAAGGGCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAGCACCTCTGGGGGACAGCGG
CCCTGGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCTGGAAGTCAAGGCGCCCTGACCAGCGCGGTGCACACC
TTCCCGGCTGTCTACAGTCTCAGGACTTACTCCCTCAGCAGGCTGGTGAACGTGCCCTCCAGCAGCTTGGGCAACCCAGACCTA
CATCTGCAACGTGAATCACAAGCCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCCAACTCTGTGACAAAACCTCACACATGCC
CACCGTGCCAGCACCTGAAGCCGCGGGGGCACCCTGAGTCTTCTCTTCCCCCAAACCAAGGACACCCCTCATGATCTCCCGG
ACCCCTGAGGTACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGT
GCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCAGGTACCGTGTGGTCAGCGTCTCACCCTCTGCACCAAGGACT
GGCTGAATGGCAAGGAGTACAAGTGCAGGCTCTCCAACAAGCCCTCCAGCCCCCATCGAGAAAACCATCTCCAAGCCAAAGGG
CAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGATGAGCTGACCAAGAACCAGGTGAGCTGACCTGCCTGGTCAA
AGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGAGAAACAACATAAGACCACGCTCCCGTGTCTGG
ACTCCGACGGCTCCTTCTGCTCTATAGCAAGCTCACCCTGGCAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTG
ATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGTTGA

>Sequence ID 189: SI-9C21 Light Chain Amino Acid Sequence

EIVMTQSPSTLSASVGRVITTCQASESISWLAHYQKPKGKAPKLLIYEASKLASGVPSRFSGSGSGAEFTLTISLQPDFFATY
YCQGYFYFISRTYVNSFGQGTCLTVLRVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQD
SKDSTYSLSLTLTKADYEKKHVVACEVTHQGLSSPVTKSFNRGEC

>Sequence ID 190: SI-9C21 Light Chain Nucleotide Sequence

GAAATCGTTATGACGCAGAGTCCCTCCACGCTCTCCGCTAGTGTGCGGGATCGCGTCATTATCACATGCCAGGCCTCCGAGTCAAT
CAGCAGCTGGCTTGCATGGTATCAACAGAAGCCGGGAAAAGCTCCTAAATTGCTGATCTATGAAGCGTCAAATGGCGTCTGGTG
TCCCATCTAGGTTCTCCGGCTCTGGGTCTGGTGCAGAAATTACTTTGACAATCTCCAGTCTTCAACCAGACGATTTCGTACCTAC
TACTGCCAAGGGTATTTCTATTTTATAAGCCGGACATATGTAACTCCTTCGGCCAAGGAACAAAGTTGACTGTTCTTCGTACGGT
GGCTGCACCATCTGTCTTTCATCTTCCGCCATCTGATGAGCAGTGAATCTGGAACCTGCCTCTGTTGTGTGCTGCTGAATAACT
TCTATCCCAGAGAGGCCAAAGTACAGTGAAGGTGGATAACGCCCTCCAATCGGGTAACCTCCAGGAGAGTGTACAGAGCAGGAC
AGCAAGGACAGCACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAAGCAGACTACGAGAAACACAAAGTCTACGCTGCGAAGT
CACCATCAGGGCCTGAGCTCGCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTAG

>Sequence ID 191: SI-35FS11 Amino Acid Sequence

EPKSSDKTHTCPPCPAEPAAAPSFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYR
VVSIVTLVHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQP
ENNYKTTTPVLDSGDSFFLYSKLTVDKSRWQQGNVFSQVMHEALHNHYTQKSLSLSPGGGGSGGGGSRSLVESGGGLVQPGGSL
RLSCTASGFTISSYHMQRVQAPGKGLYIGTISGGNVYASSARGRFTISRPSKNTVDLQMNLSRAEDTAVYYCARD SGYSDP
MWGQGLTVTVSSGGGGSGGGGSGGGGSDVMTQSPSSVSASVGRVITTCQASQNI RTYLSWYQKPKGKAPKLLIYAAANL
ASGVPSRFSGSGSGTDFTLTISDLEPGDAATYYCQSTYLGTIDYVGGAFGGGKVEIK

>Sequence ID 192: SI-35FS11 Nucleotide Sequence

GAGCCCAAATCTCCGACAAAACCTCACACATGCCACCGTGCCAGCACCTGAAGCCGCGGGGGCACCGTCAGTCTTCCTCTTCCC
CCCAAACCCAAGGACACCTCATGATCTCCCGACCCCTGAGGTCACATGCGTGGTGGACGTGAGCCACGAAGACCTGAGG
TCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGT
GTGGTCAGCGTCTCACCCTCCTGCACAGGACTGGCTGAATGGCAAGGAGTACAAGTGC CGGCTCTCCAACAAAGCCCTCCCAGC
CCCCATCGAGAAAACCATCTCCAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGGGATGAGCTGA
CCAAGAACCAGGTGAGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCG
GAGAACAATACAAGACCACGCCTCCCGTGTGGACTCCGACGGCTCCTTCTTCTCTATAGCAAGCTCACCCTGGACAAGAGCAG
GTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTC
CGGGTGGCGGTGGAGGTCGGCGGTGGTGGATCCCGGTGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGTCCCTG
AGACTCTCCTGTACTGCCTCTGGATTACCATCAGTAGCTACCACATGCAGTGGGTCCGCCAGGCTCCAGGGAAGGGGTGGAGTA
CATCGGAACCATTAGTAGTGGTGAATGTATACTACGCGAGCTCCGCGAGAGGCAGATTACCATCTCCAGACCCCTCGTCCAAGA
ACAGGTTGGATCTTCAAATGAACAGCCTGAGAGCCGAGGACAGGCTGTGTATTACTGTGCGAGAGACTCTGGTTATAGTGATCCT
ATGTGGGGCCAGGGAACCTGGTCAACCTCTCTTCAAGCGGTGGTGGTGGTGGAGTCTGGGGGAGGCGGTTCTGGCGGCGGAGGGTCCGGCGG
TGGAGGATCAGACGTTGTGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTACCATCACCTGTGAGGCCA
GTCAGAACATTAGGACTTACTTATCCTGGTATCAGCAGAAACAGGGAAAGCCCTAAGCTCCTGATCTATGCTGCAGCCAATCTG
GCATCTGGGGTCCCATCAAGGTTCAAGGTCAGCGGAGTGGATCTGGGACAGATTCTACTCTACCATCAGCGACCTGGAGCCTGGCGATGC
TGCAACTTACTATTGTGAGTCTACCTATCTTGGTACTGATTATGTTGGCGGTGCTTTCGGCGGAGGGACCAAGGTGGAGATCAAT
GA

>Sequence ID 193: SI-3FS11 Amino Acid Sequence

EPKSSDKTHTCPPCPAEPAAAPSFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYR
VVSIVTLVHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQP
ENNYKTTTPVLDSGDSFFLYSKLTVDKSRWQQGNVFSQVMHEALHNHYTQKSLSLSPGGGGSGGGGSEVQLLESGLVQPGGS
LRLSCAASGFSFSSGYDMCWVRQAPGKGLEWIAICAAAGSAGITYDANWAKGRFTISRDNKNTLYLQMNLSRAEDTAVYYCARSAF
SFDYAMD LWGQGLTVTVSSGGGGSGGGGSGGGGSDIQMTQSPSTLSASVGRVITTCQASQSISSHLNHYQKPKGKAPKLL
IYKASTLASGVPSRFSGSGSGTEFTLTISLQPDFFATYYCQQGYSGWNVNDFGGGKVEIK

>Sequence ID 194: SI-3FS11 Nucleotide Sequence

GAGCCCAAATCTCCGACAAAACCTCACACATGCCACCGTGCCAGCACCTGAAGCCGCGGGGGCACCGTCAGTCTTCCTCTTCCC
CCCAAACCCAAGGACACCTCATGATCTCCCGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGG
TCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGT
GTGGTCAGCGTCTCACCCTCCTGCACAGGACTGGCTGAATGGCAAGGAGTACAAGTGC CGGCTCTCCAACAAAGCCCTCCCAGC
CCCCATCGAGAAAACCATCTCCAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGGGATGAGCTGA
CCAAGAACCAGGTGACCTGACCTGCCTGGTCAAAGGCTTCTATCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCG
GAGAACAATACAAGACCACGCCTCCCGTGTGGACTCCGACGGCTCCTTCTTCTCTATAGCAAGCTCACCCTGGACAAGAGCAG

GTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTC
CGGGTGGCGGTGGAGGGTCCGGCGGTGGTGGATCCGAGGTGCAGTGTGGAGTCTGGGGGAGGCTTGGTACAGCCTGGGGGGTCC
CTGAGACTCTCCTGTGCAGCCTCTGGATTCTCTTCAGTAGCGGGTACGACATGTGCTGGTCCGCCAGGCTCCAGGGAAGGGGCT
GGAGTGGATCGCATGCATTGCTGCTGGTAGTGCTGGTATCACTTACGACGCGAACTGGGCGAAAGGCCGGTTCACCATCTCCAGAG
ACAATCCAAGAACACGCTGTATCTGCAAATGAACAGCCTGAGAGCCGAGGACACGGCCGTATATTACTGTGCGAGATCGCGGTTT
TCGTTGCACTACGCCATGGACCTCTGGGGCCAGGGAACCCCTGGTCAACCTCTCGAGCGGTGGAGGCGGATCTGGCGAGGTGGTTC
CGGCGGTGGCGGCTCCGGTGGAGGGGCTCTGACATCCAGATGACCCAGTCTCCTTCCACCCTGTCTGCATCTGTAGGACAGAG
TCACCATCACTTGCAGGCCAGTCAGAGCATTAGTTCCTCACTTAACTGGTATCAGCAGAAACAGGGAAGCCCTTAAGCTCCTG
ATCTATAAGGCATCACTCTGGCATCTGGGGTCCCATCAAGGTTGAGCGGCAGTGGATCTGGGACAGAAATTTACTCTCACCATCAG
CAGCCTGCAGCCTGATGATTTTGAACCTATTACTGCCAACAGGGTTATAGTTGGGGTAATGTTGATAATGTTTTCGGCGGAGGGA
CCAAGGTGGAGATCAAATAA

>Sequence ID 195: SI-68X1 Chain A Amino Acid Sequence

DIQMTPSPSTLSASVGDVRTITCQASENIYSNLAWYQQKPGKAPKLLIYDASTLASGVPSRFSGSGSGTEFTLTISLQPDDEFATY
YCQSTYYNNIIYGAAGCGTKVEIKGGGGSGGGSGGGSGGGSEVQLVESGGGLVQPGGSLRLSCAASGFSFSGTQYVWCWRQA
PGKCLEWIGCIYVDVANTYATSVKGRFTISRDN SKNTLYLQMSLSRAEDTAVYYCASHDTVCAGCGLDLWQGQTLVTVSTGGGGS
GGGGSEVQLVESGGGLVQPGGSLRLSCAASGFTISTNAMS WVRQAPGKGLEWIGVITGRDITYYASWAKGRFTISRDN SKNTLYLQ
MNSLRAEDTAVYYCARDGSSAITSNNIWQGQTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPTVTVSWNSGALT
SGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKHTHTCPPCPAPEAAGGPSVFLFPPKPKD
LMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKT
ISKAKGQPREPQVCTLPPSRDELTKNQVSLSCAVKGFPYSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNV
FSCVMHEALHNHYTQKSLSLSPGK

>Sequence ID 196: SI-68X1 Chain A Nucleotide Sequence

GACATCCAGATGACCCAGTCTCCTTCCACCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCACTTGCAGGCCAGTGAGAACAT
TTACAGCAATTTAGCCTGGTATCAGCAGAAACAGGGAAAGCCCTAAGCTCCTGATCTATGATGCTTCCACTCTGGCATCTGGGG
TCCCATCAAGGTTCCAGCGGCAGTGGATCTGGGACAGAATCACTCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGAACCTAT
TACTGCCAATCTACTTATTATAATAATATCATTTATGGGGCTGCTTTCGGCTGTGGGACCAAGGTGGAGATCAAAGGCGGTGGCGG
TAGTGGGGGAGGCGGTTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCAGAGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTGGTCC
AGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCTCCTTCAGTGGCACCCAGTACGTGTGCTGGGTCCGCCAGGCT
CCAGGGAAGTGCCTGGAGTGGATCGGATGCATTTATGTGGATGTGGCTAACACTTACTACGCGACCTCCGTGAAGGGCAGATTAC
CATCTCCAGAGACAATCCAAGAACACGCTGTATCTTCAAATGAACAGCCTGAGAGCCGAGGACACGGCTGTGTATTACTGTGCGA
GTCAATGATACCTGTTTGTGCTGGTTGTGGTCTTGGGGCCAGGGAACCCCTGGTCAACCTGTCGACAGCGGTGGAGGGTCC
GGCGGTGGTGGATCAGAGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGC
CTCTGGATTACCATCAGTACCAATGCAATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGATCGGAGTCATTACTG
TGCTGATATCACATACTACGCGAGCTGGGCGAAAGGCAGATTACCATCTCCAGAGACAATCCAAGAACACGCTGTATCTTCAA
ATGAACAGCCTGAGAGCCGAGGACACGGCTGTGTATTACTGTGCGAGAGACGGTGGTTCTTCTGCTATTACTAGTAAACACATTG
GGGCCAGGGAACCCCTGGTCAACCTGTCTCAGCTAGCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCTCCAAGAGCACCT
CTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTGCTGGAACCTCAGGCGCCCTGACC
AGCGCGTGCACACCTTCCCGGCTGTCTTACAGTCTCAGGACTTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTT
GGGCCACAGACTTACATCTGCAACGTGAATCACAAGCCAGCAGAACACCAAGGTGGACAAGAGAGTTGAGCCCCAATCTTGTGACA
AACTCACACATGCCACCGTGCCAGCACCTGAAGCCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACACC
CTCATGATCTCCCGGACCCCTGAGGTCAATGCGTGGTGGTGGACGTGAGCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTACGT
GGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGAGGAGCAGTACGCCAGCACGTACCGTGTGGTCAGCGTCTCACCG
TCCTGCACAGGACTGGCTGAATGGCAAGGAGTACAAGTGCGCGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATC
TCCAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTGTACCCTGCCCATCCCGGGATGAGCTGACCAAGAACCAGGTGAGCCT
GTCCTGCGCGCTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCA
CGCCTCCCGTGTGACTCGGACGGCTCCTTCTTCTCTGAGCAAGCTCACCGTGACCAAGAGCAGGTGGCAGCAGGGAACGCTC
TTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGACAGAAGAGCCTCTCCTGTCTCCGGGTAAA

>Sequence ID 197: SI-68X1 Chain B Amino Acid Sequence

DIQMTPSPSSLSASVGDVRTITCQASQDISNYLNWYQQKPGKAPKLLIYDASNLETGVPSRFSGSGSGTDFFTTISLQPDEDIATY
FCQHFHDLPLAFGCGTKVEIKGGGSGGGSGGGSGGGSGVQLQESGPGLVKPSETLSLTCTVSGGVS SSGDYWTWIRQSPGK
CLEWIGHIYYSGNTNYPNLSKRLTISIDTSKTFSLKLS SVTAADTAIYYCVRDRVTGAFDIWQGTMTVTVSTGGGSGGGGSDV
VMTQSPSTLSASVGDVRTINCQASEISSWLAWYQQKPGKAPKLLIYEASKLASGVPSRFSGSGSGTEFTLTISLQPDDEFATYYC
QGYFYFISRTYVNSFGGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSK
DSTYLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGECGGDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEV
TCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQPRE
PQVYTLPPCDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFCSCVMHEA
LHNHYTQKSLSLSPGK

>Sequence ID 198: SI-68X1 Chain B Nucleotide Sequence

GACATCCAGATGACCCAGTCTCCATCCTCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCACTTGCCAGGCGAGTCAGGACAT
CAGCAACTATTTAAATTGGTATCAGCAGAAACAGGGAAAGCCCCCTAAACTCCTGATCTACGATGCATCCAATTTGGAAACAGGGG
TCCCATCAAGGTTTCAGTGGAGTGGATCTGGGACAGATTTTACTTTTACCATCAGCAGCCTGCAGCCTGAAGATATTGCAACATAT
TTCTGTCAACACTTTGATCATCTCCCGCTCGCTTTCGGCTGTGGGACCAAGGTGGAAATTAAGGCGGTGGCGGTAGTGGGGGAGG
CGGTTCTGGCGGGGAGGGTCCGGCGGTGGAGGATCACAGGTTCAGCTGCAGGAGTCGGGCCAGGACTGGTGAAGCCTTCGGAGA
CCCTGTCCCTCACCTGCACTGTCTCTGGTGGCTCCGTACAGCAGTGGTGATTACTACTGGACCTGGATCCGGCAGTCCCCAGGGAAG
TGCCGTGGAGTGGATTGGACACATCTATTACAGTGGGAACACCAATTATAACCCCTCCCTCAAGAGCCGACTCACCATATCAATTGA
CACGTCCAAGACTCAGTTCTCCCTGAAGCTGAGTTCTGTGACCGCTGCGGACACGGCCATTTATTACTGTGTGCGAGATCGAGTGA
CTGGTCTTTTATATCTGGGGCCAAGGGACAATGGTCACCGTGTGACAGGCGGTGGAGGGTCCGGCGGTGGTGGATCAGACGTC
GTGATGACCCAGTCTCCTTCCACCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCAATTGCCAAGCCAGTGAGAGCATTAGCAG
TTGGTTAGCCTGGTATCAGCAGAAACAGGGAAAGCCCCCTAAGCTCCTGATCTATGAAGCATCCAACTGGCATCTGGGGTCCCAT
CAAGGTTACAGCGGAGTGGATCTGGGACAGAATTCATCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGCAACTTATTACTGC
CAGGCTATTTTTATTTTATTTAGTCTGTAATTTCTTTTGGCGGAGGGACCAAGGTGGAGATCAAACTGACGTGGCTGTC
ACCATCTGTCTTCTATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTTGTGTGCTGCTGAATAACTTCTATC
CCAGAGAGGGCCAAAGTACAGTGGAGGTGGATAACGCCCTCCAATCGGGTAACTCCAGGAGAGTGTACAGAGCAGGACAGCAAG
GACAGCACCTACAGCCTCAGCAGCACCCCTGACGCTGAGCAAGCAGACTACGAGAAACACAAAGTCTACGCCTGCGAAGTCACCCA
TCAGGCTCAGTGCCTCGCCGCTCACAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGACAAAACCTCACACATGCCACCCCTGCCAG
CACCTGAAGCCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACACCCCTCATGATCTCCCGGACCCCTGAGGTC
ACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCCTGAGGTCAAGTTCAACTGGTACGTGGACGCGCTGGAGGTGCATAATGCCAA
GACAAAGCCGCGGGGAGGAGCAGTACGCCAGCAGTACCGTGTGGTCAGCGTCTCACCCTCCTGCACCAGGACTGGCTGAATGGCA
AGGAGTACAAGTGCCTGGTCTTCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAGCCAAAGGGCAGCCCCGAGAA
CCACAGGTGTACACCTGCCCTCATGTGGGATGAGCTGACCAAGAACCAGGTGAGCCTGTGGTGCCTGGTCAAAGGCTTCTATCC
CAGCGACATCGCGTGGAGTGGGAGAGCAATGGGAGCCGGAGAACACTACAAGACCAGCCTCCCGTGTGGACTCCGACGCGT
CCTTCTTCTCTATAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCT
CTGCACAACCACTACACGCAAGAGCCCTCTCCCTGTCTCCGGGTAA

>Sequence ID 199: SI-68X3 Chain A Amino Acid Sequence

DIQMTPSPSSLSASVGDVITITCRASQDVNTAVAWYQQKPKAPKLLIYSASFLYSGVPSRFSGSRSGTDFTLTISLQPEDFATY
YCQQHYHTTPTFTGQTKVEIKGGGSGGGGSGGGGSGGGSEVQLVESGGGLVQPGGSLRLSCAASGFNIKDYIHWVRQAPGKGL
EWVARIYPTNGYTRYADSVKGRFTISADTSKNTAYLQMSLRAEDTAVYYCSRWGGDGFYAMDYWGQGLVTVSTGGGSGGGGSE
VQLVESGGGLVQPGGSLRLSCAASGFTISTNAMSWVRQAPGKLEWIGVITGRDITYYASWAKGRFTISRDNSKNTLYLQMSLRA
EDTAVYYCARDGGSSAITSNNIWGGTGLTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTF
PAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHKPSNTKVDKRVPEPKSCDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRT
PEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTIKAKGQ
PREPQVCTLPFSRDELTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSGSEFVLVSKLTVDKSRWQQGNVFSQSV
HEALHNHYTQKSLSLSPGK

>Sequence ID 200: SI-68X3 Chain A Nucleotide Sequence

GACATCCAAATGACGAGTCTCCCTCCAGTTTGAAGTGTGGGAGACAGAGTTACGATCAGATGTAGGGCAAGTCAGGACGT
CAATACAGCGCTCGCATGGTACCAGCAGAAGCCTGGAAAGGCCCGAACTTCTGATTTACTCTGCAAGTTTCTCTACAGTGGTG
TTCTAGTCTGCTTCAAGTGGGTCTCGGTACAGCACCAGATTTTACCCTGCAATTAGCAGCTTGCACCGGAAGATTTTGCACCTAT
TATTGCCAGCAACATTATACACCCCTCCACATTTGGACAAGGACGAGGTAGAGATTAAAGGCGGTGGAGGGAGCGGTGGAGG
CGGTTCCGGTGGAGGTGGTCTGGTGGAGTGGCAGTGAAGTACAGCTTGTGAGAGTGGTGGTGGACTTGTCCAACAGGGGGAA
GTCTGCGGCTGTATGCGCAGCCTCTGGCTTCAACATTAAGGACACCTACATTCAGTGGGTTCCGCAAGCGCGGGGGAAGGGGCTG
GAATGGGTCCGACAGATATACCTACCAACGGGTACACAGGTATGAGATAGCGTTAAGGGTAGATTCACTATTTAGCTGACAC
TAGCAAGAACACCGGTATCTCCAGATGAACTCCCTTCGCGCCGAGGATACGGCTGTGTACTACTGCTTAGTGGGGAGGAGATG
GGTTTACGCAATGGATTACTGGGACAGGGAACACTCGTTACGGTGTGACAGGCGGTGGAGGGTCCGGCGGTGGTGGATCAGAG
GTGCAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGCTCCCTGAGACTCTCCTGTGAGCCTCTGGATTACCATCAG
TACCAATGCAATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGATCGGAGTCATTACTGGTCTGATATCACATAC
ACGCGAGCTGGGCGAAAGGCAGATTACCATCTCCAGAGACAATTCAGAAGACAGCTGTATCTTCAAATGAACAGCTGAGAGCC
GAGGACACGGCTGTGTATTACTGTGCGAGAGACGGTGGTCTTCTGCTATTACTAGTAACAACATTTGGGGCCAGGGAACCCCTGGT
CACCCTGTCTCAGCTAGCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGGCC
TGGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCTGGAACTCAGGCGCCCTGACCAGCGCGGTGCACACCTTC
CCGGCTGTCTACAGTCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCTCCAGCAGCTTGGGACCCAGACCTACAT
CTGCAACGTGAATCACAAGCCAGCAACACCAAGGTGGACAAGAGATTGAGCCCAATCTTGTGACAAAACCTCACACATGCCAC
CGTGGCCAGCACCTGAAGCCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACACCCCTCATGATCTCCCGGACC
CCTGAGGTACATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCA
TAATGCCAAGACAAGCCGCGGGGAGGAGCAGTACGCCAGCAGTACCGTGTGGTCAAGCTCCTCAGCGTCTCAGCGTCTCAGCGTCTG
TGAATGGCAAGGAGTACAAGTGGCGGCTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAGCCAAAGGGCAG

CCCCGAGAACCACAGGTGTGTACCCTGCCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTCAGCCTGTCTCGCGCCGTCAAAGG
CTTCTATCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGACT
CCGACGGCTCCTTCTCTCGTGAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGCTCTTCTCATGCTCCGTGATG
CATGAGGCTCTGCACAACCCTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAA

>Sequence ID 201: SI-68X3 Chain B Amino Acid Sequence

DVVMTQSPSTLSASVGDRTINCQASESISWLAWYQQKPKGKAPKLLIYEASKLASGVPSRFSGSGSGTEFTLTISLQPDDEFATY
YCQGYFYFISRTYVNSFEGGKTKVEIKRTVAAPSVFI FPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQD
SKDSTYSLSSLTLSKADYEKHVYACEVTHQGLSSPVTKSFNRGECGGDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPE
VTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCAVSNKALPAPIEKTISKAKGQP
REPQVYTLPPCRDELTKNQVSLWLVKGFPYSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFCSCVMH
EALHNHYTQKSLSLSPGK

>Sequence ID 202: SI-68X3 Chain B Nucleotide Sequence

GACGTCGTGATGACCCAGTCTCCTTCCACCTGTCTGCATCTGTAGGAGACAGAGTCACCATCAATTGCCAAGCCAGTGAGAGCAT
TAGCAGTTGGTTAGCTTGGTATCAGCAGAAACCAGGGAAAGCCCTAAGCTCCTGATCTATGAAGCATCCAAACTGGCATCTGGGG
TCCCATCAAGGTTTCAGCGGCAGTGATCTGGGACAGAATTCACCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGCAACTTAT
TACTGCCAAGGCTATTTTTATTATTAGTCGTACTTATGTAATTCCTTCGGCGGAGGGACCAAGGTGGAGATCAAACGTACGGT
GGCTGCACCATCTGTCTTCATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAATGCCTCTGTTGTGTGCCTGCTGAATACT
TCTATCCCAGAGAGGCCAAAGTACAGTGGAAAGTGGATAACGCCCTCCAATCGGGTAACTCCCAGGAGAGTGTACAGAGCAGGAC
AGCAAGGACAGCACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAAAGCAGACTACGAGAAACACAAAGTCTACGCCCTGCGAAGT
CACCCATCAGGGCCTGAGCTCGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTGGAGGCGACAAAACCTCACACATGCCACCGT
GCCCCAGCACCTGAAGCCGCGGGGGGACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACACCCCTCATGATCTCCCGGACCCCT
GAGGTACATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAA
TGCCAAGACAAAGCCGCGGGAGGAGCAGTACGCCAGCACGTACCGTGTGGTACGCGTCTCACCGTCTGCACACGAGTGGCTGA
ATGGCAAGGAGTACAAGTGC GCGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAGGCCAAAGGGCAGCCC
CGAGAACACAGGTGTACACCTGCCCCCATGTGCGGATGAGCTGACCAAGAACCAGGTGAGCCTGTGGTGCCTGGTCAAAGGCTT
CTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGTGGACTCCG
ACGGTCTCCTTCTTCTCTATAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGCTTCTTCATGTCCGTGATGCAT
GAGGCTCTGCACAACCACTACACGCAGAAGACCTCTCCCTGTCTCCGGGTAAA

>Sequence ID 203: αEGFR VH Amino Acid Sequence

QVQLQQSGPGLVKPSETLSITCTVSGFSLTNYGVHWIRQAPGKGLEWLGLVIWSGGNTDYNTPFTSRFTITKDNSKNQVYFKLSVR
ADDTAIYYCARALTYDYEFAYWGQGLTVTVSS

>Sequence ID 204: αEGFR VH Nucleotide Sequence

CAAGTACAGTTGCAGCAATCCGGTCCCGGTCTCGTCAAACCGAGTGAGACGCTTAGTATAACGTGTACTGTTTCAGGCTTTAGCCT
TAGCAACTATGGATTGCTGATTCGGCAGGCACCCGCAAGGTTTGGAAATGGCTGGGTGTTATTTGGTCAGGTGGAATACAG
ACTATAACACCCCTTTTACAAGTCGGTTTACAATTACGAAGATAATTCAAAAATCAAGTTTATTTCAAGTTGAGATCCGTCCGC
GCGGACGACACTGCATCTACTATTGTGCGAGGGCACTGACCTACTACGATTACGAATTTGCGTATTGGGGCAAGGGACTCTTGT
AACAGTCTCGAGC

>Sequence ID 205: αEGFR VL Amino Acid Sequence

EIVLTQSPSTLSVSPGERATFSCRASQSIGTNIHWYQQKPKPPRLIKYASESISGIPDRFSGSGSGTEFTLTISVQSEDFAVY
YCQQNNWPTTFGPGTKLTVL

>Sequence ID 206: αEGFR VL Nucleotide Sequence

GAAATCGTCCTTACACAATCTCCTAGCACACTGAGTGTGAGCCCCGGCGAACGCGCGACTTTCTCTTGCAAGGGCAAGTCAATCCAT
AGGGACTAATATACATTGGTATCAACAAAAGCCAGGTAAACACCCAGGCTTTTGATTAAAGTATGCAAGTGAGTCTATTTCCGGTA
TCCCTGACCGCTTCTCTGGATCAGGCAGTGGCACAGAGTTTCACTCACCATATCTAGTGTGCAATCAGAGGACTTCGCCGTGTAT
TACTGCCAACAGAATAATAACTGGCCGACTACCTTCGGACCCGGTACAAAGCTGACCGTTTAA

>Sequence ID 207: αEGFR* VH Amino Acid Sequence

QVQLQESGPGLVKPSETLSLTCTVSGSVSSGDYYWTWIRQSPGKGLEWIGHIYSGNTNYPNLSKRLTISIDTSKTQFSLKLS
VTAADTAIYCVDRDVTGAFDIWGQGTMTVTVSS

>Sequence ID 208: α EGFR* VH Nucleotide Sequence

CAAGTGCAACTCCAGGAGAGTGGGCCGGGATTGGTTAAACCGAGCGAGACCCTGAGTCTCACGTGTACAGTTTCAGGCGGGAGCGT
GAGCTCAGGCGACTATTACTGGACATGGATAAGACAGAGTCCTGGAAAGGGCCTGGAGTGGATCGGTCATATTTATTATTTCAGGGA
ACACTAACTATAATCCATCTTTGAAATCCCGATTGACAATCTCTATCGATACCAGTAAACCCAGTTTAGCCTCAAGCTGTCCAGC
GTTACTGCTGCAGACACAGCCATATACTATTCGCTACGCGATCGCGTGAAGTGGAGCCTTCGACATATGGGGGCAGGGAACGATGGT
AACAGTCTCGAGC

>Sequence ID 209: α EGFR* VL Amino Acid Sequence

DIQMTQSPSSLSASVGDRVTITCQASQDISNYLNWYQQKPGKAPKLLIYDASNLETGVPSRFSGSGSGTDFTFTISSLQPEDIATY
FCQHFHDLPLAFGGGKVEIK

>Sequence ID 210: α EGFR* VL Nucleotide Sequence

GACATCCAGATGACCCAGTCTCCATCCTCCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCACTTGCCAGGCGAGTCAGGACAT
CAGCAACTATTTAAATTGGTATCAGCAGAAACAGGGAAAGCCCTAAACTCCTGATCTACGATGCATCCAATTTGGAAACAGGGG
TCCCATCAAGGTTTCAGTGGAGTGGATCTGGGACAGATTTTACTTTTACCATCAGCAGCCTGCAGCCTGAAGATATTGCAACATAT
TTCTGTCAACACTTTGATCATCTCCCGCTCGCTTTCGGCGGAGGACCAAGGTGAAATTAAA

>Sequence ID 211: α EGFR* VH Stapled Amino Acid Sequence

QVQLQESGPGLVKPSSETLSLTCTVSGGSVSSGDYIYWTWIRQSPGKCLEWIGHIYYSGNTNYPNLSKSRITISIDTSKTQFSLKLSS
VTAADTAIYYCVRDRVTGAFDIWGGTMVTVST

>Sequence ID 212: α EGFR* VH Stapled Nucleotide Sequence

CAGGTGCAGCTGCAGGAGTCGGGCCAGGACTGGTGAAGCCTTCGGAGACCCTGTCCCTCACCTGCACTGTCTCTGGTGGCTCCGT
CAGCAGTGGTGATTACTACTGGACCTGGATCCGGCAGTCCCCAGGGAAGTGCCTGGAGTGGATTGGACACATCTATTACAGTGGGA
ACACCAATTATAACCCCTCCCTCAAGAGCCGACTCACCATATCAATTGACACGTCCAAGACTCAGTTCTCCCTGAAGCTGAGTTCT
GTGACCGCTGCGGACACGGCCATTATTACTGTGTGCGAGATCGAGTGACTGGTGCTTTTGATATCTGGGGCCAAGGGACAATGGT
CACCGTGTGAGACA

>Sequence ID 213: α EGFR* VL Stapled Amino Acid Sequence

DIQMTQSPSSLSASVGDRVTITCQASQDISNYLNWYQQKPGKAPKLLIYDASNLETGVPSRFSGSGSGTDFTFTISSLQPEDIATY
FCQHFHDLPLAFGGGKVEIK

>Sequence ID 214: α EGFR* VL Stapled Nucleotide Sequence

GACATCCAGATGACCCAGTCTCCATCCTCCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCACTTGCCAGGCGAGTCAGGACAT
CAGCAACTATTTAAATTGGTATCAGCAGAAACAGGGAAAGCCCTAAACTCCTGATCTACGATGCATCCAATTTGGAAACAGGGG
TCCCATCAAGGTTTCAGTGGAGTGGATCTGGGACAGATTTTACTTTTACCATCAGCAGCCTGCAGCCTGAAGATATTGCAACATAT
TTCTGTCAACACTTTGATCATCTCCCGCTCGCTTTCGGCTGTGGACCAAGGTGAAATTAAA

>Sequence ID 215: α CD19 VH Amino Acid Sequence

QVTLKESGPGLVQPGQTLSTLCAFSGFSLSSTSGMGVGVIRQPPGKGLEWLAHIWDDDKRYNPALKSRITISKDTSKNQVYLQMN
LDAEDTAVYYCARMELWSYFDYWGQGLVTVSS

>Sequence ID 216: α CD19 VH Nucleotide Sequence

CAGGTACATTTGAAGGAATCTGGCCCCGGCCTTGTTAGCCAGGACAGACCCTTAGCCTCACCTGTGCCTTCAGTGGTTTTTCTCT
TAGCACTAGCGGTATGGGGGTCGGCTGGATTCGGCAGCCTCCCGGCAAAGGTCTTGAGTGGTTGGCTCACATTTGGTGGGACGACG
ACAAACGGTATAATCCTGCCTTGAAAAGTCGGCTGACCATTAGTAAGGATACCTCAAAAAATCAAGTGACTTGCAAATGAATAGC
CTTGACGCCGAGGATACGGCTGTATATTATTCGCGCGGATGGAAGTCTGGTCTTACTACTTTGATTATGGGGGCAGGGGACTCT
CGTCACGGTCTCGAGC

>Sequence ID 217: α CD19 VL Amino Acid Sequence

ENVLTQSPASLSASPGERVITITCSASSSVSYMHWYQQKPGQAPKLIYDTSKLASGVPSRFSGSGSGNDHTLTISSEMPEDFATYY
CFQGSVYPFTFGQGTKVTVL

>Sequence ID 218: α CD19 VL Nucleotide Sequence

GAAATGTATTGACACAGAGCCCCGCTCCCTCAGTGCCTCACCTGGGGAAAGGTAACATCACTTGCTCTGCATCAAGCAGCGT
CTCATACATGCATTGGTATCAACAAAAGCCTGGACAGGCCCCCAAGCTCTGGATATACGATACGAGCAAGCTGGCTTCCGGCGTAC
CTAGCCGCTTCAGTGGTTCGGCTCAGGCAACGATCACACCCTTACGATTTCAGTATGGAACCCGAAGATTTTGCAACTATTAT
TGTTTCCAGGGGAGCGTGATCCCATTCACCTTCGGGCAGGGGACAAAAGTGACCGTCCTA

>Sequence ID 219: α CD3 VH Amino Acid Sequence

EVQLVESGGGLVQPGGSLRLSCAASGFTISTNAMSWVRQAPGKLEWIGVITGRDITYYASWAKGRFTISRDN SKNTLYLQMNSLR
AEDTAVYYCARDGGSSAITSNNIWQGTLTVSS

>Sequence ID 220: α CD3 VH Nucleotide Sequence

GAGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGTCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCAT
CAGTACCAATGCAATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGATCGGAGTCATTACTGGTCGTGATATCACAT
ACTACGCGAGCTGGGCGAAAGGCAGATTACCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTTCAAATGAACAGCCTGAGA
GCCGAGGACACGGCTGTGTATTACTGTGCGAGAGACGGTGGTCTTCTGCTATTACTAGTAACAACATTTGGGGCCAGGGAACCCCT
GGTCACCGTGTCTCA

>Sequence ID 221: α CD3 VL Amino Acid Sequence

DVVMTQSPSTLSASVGDRVTINCQASESISSWLAWYQKPGKAPKLLIYEASKLASGVPSRFSGSGSGTEFTLTISSLQPDFFATY
YCQGYFYFISRTYVNSFGGKVEIK

>Sequence ID 222: α CD3 VL Nucleotide Sequence

GACGTCGTGATGACCCAGTCTCCTTCCACCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCAATTGCCAAGCCAGTGAGAGCAT
TAGCAGTTGGTTAGCTGGTATCAGCAGAAACCAGGGAAGCCCCAAGCTCCTGATCTATGAAGCATCCAAACTGGCATCTGGGG
TCCCATCAAGGTTACGCGCAGTGGATCTGGGACAGAATTCACCTCTCACCATCAGCAGCCTGCAGCCTGATGATTTGCAACTTAT
TACTGCCAAGGCTATTTTATTTATTAGTCGTACTTATGTAAATTCTTTCGGCGGAGGGACCAAGGTGGAGATCAAA

>Sequence ID 223: α CD3 VH stapled Amino Acid Sequence

EVQLVESGGGLVQPGGSLRLSCAASGFTISTNAMSWVRQAPGKLEWIGVITGRDITYYASWAKGRFTISRDN SKNTLYLQMNSLR
AEDTAVYYCARDGGSSAITSNNIWQGTLTVSS

>Sequence ID 224: α CD3 VH stapled Nucleotide Sequence

GAGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGTCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCAT
CAGTACCAATGCAATGAGCTGGGTCCGCCAGGCTCCAGGGAAGTGTCTGGAGTGGATCGGAGTCATTACTGGTCGTGATATCACAT
ACTACGCGAGCTGGGCGAAAGGCAGATTACCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTTCAAATGAACAGCCTGAGA
GCCGAGGACACGGCTGTGTATTACTGTGCGAGAGACGGTGGTCTTCTGCTATTACTAGTAACAACATTTGGGGCCAGGGAACCCCT
GGTCACCGTGTCTCA

>Sequence ID 225: α CD3 VL stapled Amino Acid Sequence

DVVMTQSPSTLSASVGDRVTINCQASESISSWLAWYQKPGKAPKLLIYEASKLASGVPSRFSGSGSGTEFTLTISSLQPDFFATY
YCQGYFYFISRTYVNSFGGKVEIK

>Sequence ID 226: α CD3 VL stapled Nucleotide Sequence

GACGTCGTGATGACCCAGTCTCCTTCCACCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCAATTGCCAAGCCAGTGAGAGCAT
TAGCAGTTGGTTAGCTGGTATCAGCAGAAACCAGGGAAGCCCCAAGCTCCTGATCTATGAAGCATCCAAACTGGCATCTGGGG
TCCCATCAAGGTTACGCGCAGTGGATCTGGGACAGAATTCACCTCTCACCATCAGCAGCCTGCAGCCTGATGATTTGCAACTTAT
TACTGCCAAGGCTATTTTATTTATTAGTCGTACTTATGTAAATTCTTTCGGCTGTGGGACCAAGGTGGAGATCAAA

>Sequence ID 227: α CD3* VH Amino Acid Sequence

QVQLQESGGRLVQPGPEPLSLCKTSGIDLSSNAIGWVRQAPGKLEWIGVIFGSGNTYYASWAKGRFTISRSTSTVYLMNSLRSE
DTAIYFCARGGYSSDIWQGTLTVSS

>Sequence ID 228: α CD3* VH Nucleotide Sequence

CAAGTGCAGTTGCAAGAAAGTGGTGGTAGACTGGTTCAGCCTGGTGAACCCCTGTCACTGACGTGTAAACAAGCGGCATTGATCT
GTCCTCTAACGCCATCGGATGGGTCCGACAGGCCCCAGGAAAAGGTCTGGAGTGGATCGGAGTTATCTTCGGGAGCGGCAATACAT
ACTACGCAAGCTGGGCAAAAGGGCGATTTACGATATCACGGAGCACCTCTACAGTTTATTTGAAAATGAACTCCCTCCGGTCCGAG
GATACCGCGATATATTACTGTGCCAGAGGGGGGTACTCCTCTGATATCTGGGGGCAGGGTACACTGGTTACAGTTTCATCC

>Sequence ID 229: α CD3* VL Amino Acid Sequence

DPQLTQSPSSLSATVGQRTVINCQSSQSVAKNNNLAWFQKPKPKLLIYASTLAAGVPSRFSGSGSGTQFTLTITRVQSEDF
TYYCSARDSGNIQSFSGGTRVEIK

>Sequence ID 230: α CD3* VL Nucleotide Sequence

GATCCTCAATTGACCCAGTCCCCTAGTAGCCTTTCTGCAACCGTGGGCCAGAGGGTAACAATCAATTGCCAGTCAAGCCAGTCCGT
AGCGAAGAATAATAATTTGGCATGGTTCACAAACAAACCGGGTAAACCTCCTAACTCCTTATCTACTCAGCTTCAACCCCTGCGG
CGGGTGTGCCAGCCGGTTCTCAGGCTCAGGTTCGGGGACTCAATTTACACTTACCATCACTCGCGTCCAAAGTGAGGATTTTGCA
ACCTACTATTGTTCTGCACGGGATTCCGGGAACATACAGTCCTTTGGGGGTGGAACCTCGGGTGGAGATAAAA

>Sequence ID 231: α CD3** VH Amino Acid Sequence

EVQLVESGGGLVQPGLSLRLSCAASGFTISTNAMSQVRQAPGKLEWVGIVITGRDITYYASWAKGRFTISRDTSKNTVYLQMN
SLRAEDTAVYYCARDGGSSAITSNNIWGGTLVTVSS

>Sequence ID 232: α CD3** VH Nucleotide Sequence

GAAGTCCAATTGGTAGAAAGTGGCGGTGGTCTGGTGCAACCTGGTGGATCTCTTCGCCTCTCATGCGCCGCTAGTGGCTTTACTAT
TTCAACTAATGCGATGAGCTGGGTTCGCCAGGCCCCCGGCAAGGACTTGAGTGGGTCGGCGTCATCACCAGGAGGACATTACAT
ACTATGCGAGTTGGGCAAAAGGGCAGGTTACGATTAGCCGCGATACTTCAAAGAATACCGTTTACCTTCAAATGAATAGCTTGAGG
GCGGAAGACACAGCTGTGTATTACTGCGCGAGGGATGGAGGTAGTTCGCCATAACTTCCAACAACATATGGGGACAAGGCACGCT
GGTTACTGTCTCGAGT

>Sequence ID 233: α CD3** VL Amino Acid Sequence

EIVMTQSPSTLSASVGDRIITCQASESISWLAHYQKPKKAPKLLIYEASKLASGVPSRFSGSGSGAEFTLTISLQPDFFATY
YCQGYFYFISRTYVNSFGQTKLTVL

>Sequence ID 234: α CD3** VL Nucleotide Sequence

GAAATCGTTATGACGAGAGTCCCTCCACGCTCTCCGCTAGTGTGGGGATCGCGTCATTATCACATGCCAGGCCTCCGAGTCAAT
CAGCAGCTGGCTTGATGTTATCAACAGAAGCCGGGAAAAGCTCCTAAATTGCTGATCTATGAAGCGTCAAAATTGGCGTCTGGTG
TCCCATCTAGGTTCTCCGGTCTGGGTCTGGTGCAGAAATTACTTTGACAATCTCCAGTCTTCAACCAGACGATTTGCTACCTAC
TACTGCCAAGGGTATTTCTATTTTATAAGCCGACATATGTAACTCCTTCGGCCAAGGAACAAAGTTGACTGTCTCT

>Sequence ID 235: α CD3*** VH Amino Acid Sequence

QQLLESGGRLIKPGATLRLTCKTSGFTISTNAMSQVRQPPGKLEWIGIVITGRDITYYASWAKGRFTISKTSINTVFLQMRSLRAE
DTAVYYCARDGGSSAITSNNIWGRGTLVTVSS

>Sequence ID 236: α CD3*** VH Nucleotide Sequence

CAGCAGCTGCTGGAAGCGGCGGCCCTGATTAAACCGGGCGCGACCCCTGCGCCTGACCTGCAAAACAGCGGCTTTACCATAG
CACCAACGCGATGAGCTGGGTGCGCCAGCCGCGGGCAAAGGCTTGAATGGATTGGCGTGATTACCGCCGCGATATTACCTATT
ATGCGAGCTGGGCGAAAGGCGCTTACCATAGCAAAACAGCATTAACACCGTGTCTTCTGCAGATGCGCAGCCTGCGCGCGGAA
GATACCGCGGTGATATTGCGCGCGCGATGGCGGCAGCAGCGCGATTACAGCAACAACATTTGGGGCCGCGGCACCTGGTGAC
CGTGAGACG

>Sequence ID 237: α CD3*** VL Amino Acid Sequence

DVQMTQSPSTLSATVGQRTVINCQASESISWLAHYQKPKKAPKLLIYEASKLASGVPSRFSGSGSGTEFTLTISLQSDDFATY
YCQGYFYFISRTYVNSFGGTRVEIK

>Sequence ID 238: α CD3*** VL Nucleotide Sequence

GATGTGCAGATGACCCAGAGCCCGAGCACCCCTGAGCGCGACCGTGGGCCAGCGCGTGACCATTAACTGCCAGGCGAGCGAAAGCAT
TAGCAGCTGGCTGGCGTGGTATCAGCAGAAACCGGGCCAGCCGCCGAAACTGCTGATTATGAAGCGAGCAAACTGGCGAGCGGCG
TGCCGAGCCGCTTTAGCGGCAGCGGCAGCGCACCGAATTTACCTGACCATTAGCAGCCTGCAGAGCGATGATTTTGCACCTAT
TATTGCCAGGGCTATTTTATTTTATTAGCCGCACCTATGTGAACAGCTTTGGCGGCGGCACCCGCGTGGAAATTAAT

>Sequence ID 239: α CD3**** VH Amino Acid Sequence

QQLVESGGGLVKPGGSLRLSCAASGFTISTNAMSWVRQAPGKGLEWVGIVITGRDITYYASWAKGRFTISKTSKNTVYVYLMNSLRAE
DTAVYYCARDGGSSAITSNNIWGGTLVTVSS

>Sequence ID 240: α CD3**** VH Nucleotide Sequence

CAGCAGCTGGTGAAAGCGCGCGCGCCTGGTGAAACCGGGCGGCAGCCTGCGCCTGAGCTGCGCGGCGAGCGGCTTTACCATTAG
CACCAACGCGATGAGCTGGGTGCGCCAGGCGCGCGGCAAGGCCCTGGAATGGGTGGGCGTGATTACCGCGCGGATATTACCTATT
ATGCGAGCTGGGCGAAAGGCGCTTTACCATTAGCAAAACAGCAAAACACCGTGATCTGCAGATGAACAGCCTGCGCGCGGAA
GATACCGCGGTGTATTATTGCGCGCGCGATGGCGGCAGCAGCGCGATTACCAGCAACAACATTTGGGGCCAGGGCACCTGGTGAC
CGTGAGCAGC

>Sequence ID 241: α CD3**** VL Amino Acid Sequence

DVVMTQSPSSLSASVGDRTVISCQASESISWLAWYQQKPGQAPKLLIYEASKLASGVPSRFSGSGSGTEFTLTISLLEPEDFATY
YCQGYFYFISRTYVNSFGGGTKVEIK

>Sequence ID 242: α CD3**** VL Nucleotide Sequence

GATGTGGTGATGACCCAGAGCCCGAGCAGCCTGAGCGCGAGCGTGGGCGATCGCGTGACCATTAGCTGCCAGGCGAGCGAAAGCAT
TAGCAGCTGGCTGGCGTGGTATCAGCAGAAACCGGGCCAGGCGCGGAAACTGCTGATTATGAAGCGAGCAAACTGGCGAGCGGCG
TGCCGAGCCGCTTTAGCGGCAGCGGCAGCGGCACCGAATTTACCTGACCATTAGCAGCCTGGAACCGGAAGATTTTGCACCTAT
TATTGCCAGGGCTATTTTATTTTATTAGCCGCACCTATGTGAACAGCTTTGGCGGCGGCACCAAAGTGAAATTAAT

>Sequence ID 243: α PD-L1 VH Amino Acid Sequence

EVQLLESGGGLVQPGGSLRLSCAASGFSSFGYDMCWVRQAPGKGLEWYACIAAGSAGITYDANWAKGRFTISRDNKNTLYLQMN
SLRAEDTAVYYCARSAFSDYAMDLDWGQTLVTVSS

>Sequence ID 244: α PD-L1 VH Nucleotide Sequence

GAAGTGCAATTGCTCGAAAGTGGTGGCGGACTTGTGCAACCTGGTGGAAGCCTCTCACTCTCTTGCGCGCGAGTGTTTTAGCTT
CAGTAGCGGCTACGATATGTGCTGGGTAAGACAGGCTCCTGGTAAAGGCCTTGAGTGGATTGCGTGATCGCCGCCGGGTCTGCTG
GTATAACATACGATGCAAACTGGGCGAAAGGCGCTTCACAATCTCCAGGGACAACCAAAAAATACATTGTACCTCCAGATGAAT
AGCCTGAGAGCCGAAGACACCGCAGTCTACTATTGCGCAAGGTGAGCATTAGCTTCGATTATGCAATGGATCTTTGGGGCCAGGG
GACGCTCGTCACCGTCTCATCTTGA

>Sequence ID 245: α PD-L1 VL Amino Acid Sequence

DIQMTQSPSTLSASVGDRTVITCQASQSISSHLNHWYQQKPGKAPKLLIYKASTLASGVPSRFSGSGSGTEFTLTISLQPDFFATY
YCQQGYSWGNVDNVFGGGTKVTVL

>Sequence ID 246: α PD-L1 VL Nucleotide Sequence

GACATTGAGATGACACAGTACCGTCTACGCTCTCAGCCTCAGTAGGCGATAGGGTGACTATCACCTGCCAAGCCTCCCAATCTAT
AAGTTCACACCTCAACTGGTATCAACAGAAACCGGTAAGCAGCAGGCTGCTCATCTACAAGGCATCAACTCTTGCTCAGGTG
TGCCTAGTCGCTTCTCCGGGAGCGGCTCCGGTACTGAGTTTACTTTGACGATATCTTCCCTCCAACCCGACGACTTCGCCACATAC
TATTGTGAGCAGGGTTATAGTTGGGGAATGTTGACAATGTGTTTGGAGGGGGAACGAAAGTGACTGTGTG

>Sequence ID 247: α 4-1BB VH Amino Acid Sequence

EVQLVESGGGLVQPGGSLRLSCTASGFTISSYHMQWVRQAPGKGLIYIGTISGGNVYVYASSARGRFTISRPSKNTVDLQMNSLR
AEDTAVYYCARDGYSDFPMWGQTLVTVSS

>Sequence ID 248: α 4-1BB VH Nucleotide Sequence

GAGGTTCAAGTTGGTTGAAAGTGGGGGGGACTCGTTACGCTGGAGGCTCTTTGCGACTTTCTTGTACCGCTTCTGGGTTCACTAT
AAGTTCATATCATATGCAATGGGTAAAGACAGGCGCTGGTAAGGCTCCAAAACCTCTCATTACGCCGCTGCCAACTGGCTAGTGGAG
ATTACGCCTCATCCGCGCGGGGAGGTTTACAATTTCCAGGCTTCTAGCAAAAACACGGTAGATCTGCAAATGAAGTCTCTTCGC
GCTGAAGATACAGCAGTCTACTACTGCGCCAGGGATTACAGGTTATTTGACCCCATGTGGGGGACGGGCACATTGGTTACCGTGTC
CTCT

>Sequence ID 249: α 4-1BB VL Amino Acid Sequence

DVVMTQSPSSVSASVGDRVITTCQASQNIPTYLSWYQKPKAPKLLIYAAANLASGVPSRFSGSGSGTDFTLTISDLEPGDAATY
YQSTYLGTDYVGGAFGGGTLTLV

>Sequence ID 250: α 4-1BB VL Nucleotide Sequence

GACGTTGTGATGACGCAGTCTCCTAGTTCAAGTATCAGCGTCTGTTGGGGATCGAGTCACGATTACATGCCAGGCGAGCCAAAATAT
TAGGACGTATCTGTCTGGTATCAACAAAAGCCTGGTAAGGCTCCAAAACCTCTCATTACGCCGCTGCCAACTGGCTAGTGGAG
TACCTTCACGCTTTAGTGGGTCAAGTTCTGGAACAGATTTTACGTTGACGATCTCCGATTGGAACAGGGGACGCTGCCACGTAT
TATTGCCAGTCCACCTACCTCGGGACTGACTACGTTGGTGGGGCTTTGGCGGAGGAACAAAACCTCACTGTACTT

>Sequence ID 251: 41BBL Amino Acid Sequence

REGPELSPDDPAGLLDLRQGMFAQLVAQNVLLIDGPLSWYSDPGLAGVSLTGGLSYKEDTKELVVAAGVYVFFQLELRRVAGE
SGSGVSLALHLQPLRSAAGAAALALTVDLPASSEARNSAFGFQGRLLHLSAGQRLGVHLHTEARARHAWQLTQATVGLFRVTP
EI PAGLGSTGSGSKPGSGEGSTKREGPELSPDDPAGLLDLRQGMFAQLVAQNVLLIDGPLSWYSDPGLAGVSLTGGLSYKEDTKE
LVVAAGVYVFFQLELRRVAGEGSGSVSLALHLQPLRSAAGAAALALTVDLPASSEARNSAFGFQGRLLHLSAGQRLGVHLHT
EARARHAWQLTQATVGLFRVTPPEI PAGLGGGGSGGGSGREGPELSPDDPAGLLDLRQGMFAQLVAQNVLLIDGPLSWYSDPGLA
GVSLTGGLSYKEDTKELVVAAGVYVFFQLELRRVAGEGSGSVSLALHLQPLRSAAGAAALALTVDLPASSEARNSAFGFQGR
LLHLSAGQRLGVHLHTEARARHAWQLTQATVGLFRVTPPEI PAGL

>Sequence ID 252: 41BBL Nucleotide Sequence

CGAGAGGGCCCCGAGCTGTCTCCTGATGACCCAGCAGGCTCTTGGACTTGGCGCAGGGTATGTTGCTCAACTTGTGGCTCAGAA
TGTTCTGCTCATTGATGGACCACTCTCTGGTATAGTGACCCCGGTCTGGCCGGGTGAGTCTGACCGCGGGCTCTCTTATAAAG
AGGATACTAAGGAACCTGGTCGTAGCAAAAGCGGGCGTTTATTACGTTTTTTTTTCAGCTGGAGCTCAGGCGCGTGGTGGCCGGCGAG
GGCAGTGGCTCTGTCTCCCTGGCCCTGCACTTACAGCCCTTGAGAAGCGCTGCAGGTGCTGCCGCACTGGCTTTAACTGTTGACCT
CCCTCCGGCTCTTCTGAAGCTAGAAACAGCGCTTTCGGCTTCCAAGGGCGCCTGCTGCACCTGAGCGCAGGCGAGCGCTTAGTG
TGCACCTTCATACAGAGGCCAGGGCCGACACGCTTGGCAGCTCACACAGGGTGCCACGGTTCTCGGACTTTTCCGCGTTACTCCC
GAGATCCCCGCTGGCCTCGGAAGTACTGGTCTGGGTCTAAACCCGGTTCCGGCGAAGGTAGTACTAAAGGACGAGAAGGGCCAGA
GTTAAGTCCAGATGACCTGTGGGCTTTTGGACCTGCGGCAGGGCATGTTGCTCAACTGGTGGCTCAGAACGTGCTGCTGATCG
ATGGCCCCCTGAGTTGGTACAGCGATCCCGGGCTGGCAGGCGTGCACCTTACAGGGGGCTCTCTTACAGGAAGACACCAAGGAG
TTAGTGGTCTGCTAAGGCTGGCGTGTATTACGTGTTCTTCCAAGTGGAGCTGAGAAGGGTGTGGCAGGAGAGGGTAGCGGCAGCGT
GTCTTTAGCCCTTCACTTGACGCCCTGAGGTCTGCTGCAGGTGACGCCGCTCTCGCGCTCACCGTGGATCTCCCCCAGCCTCAT
CTGAAGCTAGGAACAGTGCATTTGGCTTTTCAAGGACGCTTGTGACCTCTCCGCTGGACAGAGGCTGGGCGTGACCTTACACA
GAGGCCCCGTGCCAGGCATGCATGGCAGCTCACTCAGGGGGCAACAGTGTGGGTCTCTTCCGCGTGACTCCTGAAATACCAGCTGG
ACTTGGCGGTGGAGGCAGCGCGGAGGAGATCTCGTAGGGGGCAGAACTGTCCCCGATGACCCAGCCGGACTGCTCGATCTCA
GACAGGGCATGTTCTGCTCAGCTTTAGCCCCAAATGTCTCCTGATTGACGGCCCTTTGAGCTGGTATAGTGATCCCGGCTTGCC
GGGTATCTCTGACCGGAGGCTCTCCTACAAGGAAGACACCAAGAGCTGGTGGTGGCAAAAGCGGGGTGTATTATGTGTTCTT
TCAGCTCGAGCTGCGGAGAGTTGTGGCCGGGGAAGGGTCTGGGAGCGTATCTCTTGCACTTCACTGCAGCCCCCTGCGCAGCGCCG
CTGGAGCCGCCCTTGTCTTACTGTGGATCTGCCTCCTGCTTCTCAGAGCACGCAACAGCGCCTTCGGCTTTCAAGGAGCT
CTCTGCACTTGTCCGAGACAGAGGTTGGGCGTCCATTTACACACTGAGGCACGGGCACGGCACGCTTGGCAGCTTACCCAGGG
AGCCACCGTGTGGGACTCTTTAGAGTGACACCCGAGATCCCCGCTGGCTTGTGA

>Sequence ID 253: NKG2D dimer Amino Acid Sequence

FLNSLFNQEVQIPLTESYCGPCPNWICYKNNCYQFFDESKNYESQASCMSONASLLKVYSKEDQDLLKLKVSYHWMGLVHIPTN
GSWQWEDGSILSPNLLTIEMQKGDALYASSFKGYIENCSTPNTYICMQRTVGGGGSGGGSGGGSGGGSGGGSGFLNSLFNQEVQIP
LTESYCGPCPNWICYKNNCYQFFDESKNYESQASCMSONASLLKVYSKEDQDLLKLKVSYHWMGLVHIPTNWSWQWEDGSILSP
NLLTIEMQKGDALYASSFKGYIENCSTPNTYICMQRTV

>Sequence ID 254: NKG2D dimer Nucleotide Sequence

TTTCTTAATTCCTTTTCAACCAAGAGGTTCAAGTATCCCTTGAAGTAAAGCTATTGCGGCCCTTGTCCGAAAACCTGGATATGTTA
CAAGAATAATTGTTACCAATTCTTCGACGAAAGCAAGAACTGGTATGAGAGTCAGGCGTCTTGTATGAGTCAGAATGCCAGCCTGC
TTAAGGTTTATTCAAAGAAGACCAGGATCTGCTTAAGTTGGTAAAGAGCTACCACTGGATGGGCTGGTACATATCCCAACGAAT

GGGTCATGGCAGTGGGAGGACGGTCTATTCTGAGTCCAAATCTCCTGACGATCATCGAAATGCAGAAAGGGGACTGTGCCCTGTA
TGCATCATCCTTCAAGGGGTACATCGAGAACTGCAGTACCCCAATACCTACATTTGTATGCAAAGAACGGTTGGAGGCGGTGGCT
CAGGCGGAGGCGGCTCAGGAGGTGGCGGTTCAAGAGGCGGCGGATCTTTCCTAACTCATTTATCAACCAAGAAGTTCAAATTCCC
TTGACCGAAAGTTACTGTGGCCCATGTCTTAAAACTGGATATGTACAAAAATAACTGCTACCAATTTTGTATGAGAGTAAAAA
CTGGTATGAGAGCCAGGCTTCTTGTATGTCTCAAATGCCAGCCTTCTGAAAGTATACAGCAAAGAGGACCAGGATTTACTTAAAC
TGGTGAAGTCATATCATTGGATGGGACTAGTACACATTCACAAATGGATCTTGGCAGTGGGAAGATGGCTCCATTCTCTCAGCC
AACCTACTAACATAATTGAAATGCAGAGGGAGACTGTGCACTCTATGCCTCGAGCTTTAAAGGCTATATAGAAAACGTTCACAC
TCCAAATACGTACATCTGCATGCAAAGGACTGTG

>Sequence ID 255: αHER3 VH Amino Acid Sequence

QVQLQESGGGLVLPKGSLSLSCAASGFTFSSYWMSWVRQAPGKGLEWVANINRDGSASYVDSVKGRFTISRDDAKNSLYLQMNSL
RAEDTAVYYCARDRGVGYFDLWGRGTLTVSS

>Sequence ID 256: αHER3 VH Nucleotide Sequence

CAGGTGCAATTGCAGGAGTCGGGGGAGGCTGGTCAAGCCTGGAGGGTCCCTGAGCCTCTCCTGTGCAGCCTCTGGATTACCTT
TAGTAGTTATTGGATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGGTGGCCAAACATAAACCAGGATGGAAGTCCGA
GTTACTATGTGGACTCTGTGAAGGCGGATTCACCATCTCCAGAGACGCGCCAGAACTCACTGTATCTGCAAATGAACAGCCTG
AGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAGATCGTGGGTGGGCTACTTCGATCTCTGGGGCCGTGGCACCTGGTCAC
CGTCTCGAGT

>Sequence ID 257: αHER3 VL Amino Acid Sequence

QSALTQPASVSGSPGQSITISCTGTSSDVGGYNFVSWYQHPGKAPKLMYIDVSDRPSGVSDRFSGSKSGNTASLIISGLQADDEA
DYYCSSYGSSTHVFVGGGTKVTVL

>Sequence ID 258: αHER3 VL Nucleotide Sequence

CAGTCTGCCCTGACTCAGCCTGCCTCCGTGTCTGGGTCTCCTGGACAGTCGATCACCATCTCCTGCACTGGAACCAGCAGTGACGT
TGGTGGTTATAACTTTGTCTCCTGGTACCAACAACACCCAGGCAAAGCCCCAACTCATGATCTATGATGTCACTGATCGGGCCT
CAGGGGTGTCTGATCGCTTCTCCGCTCCAAGTCTGGCAACACGGCCTCCCTGATCATCTCTGGCTCCAGGCTGACGACAGGCT
GATTATTACTGCAGTCATATGGGAGCAGCAGCACTCATGTGATTTTCGGCGGAGGGACCAAGGTGACCGTCTCTA

>Sequence ID 259: αCD20 VH Amino Acid Sequence

QVQLQQPQAEVLKPGASVKMSCKASGYTFTSYNMHWVKQTPGRGLEWIGAIYPNGDTSYNQKFKGKATLTADKSSSTAYMQLSSL
TSEDSAVYYCARSTYYGWDWYFNVWGAGTTVTSS

>Sequence ID 260: αCD20 VH Nucleotide Sequence

CAGGTGCAGCTGCAGCAGCCCGGCCGAGCTGGTGAAGCCCGCGCCAGCGTGAAGATGAGCTGCAAGGCCAGCGGCTACACCTT
CACCAGCTACAACATGCACTGGGTGAAGCAGACCCCGGCCGGGCGCTGGAGTGGATCGGCGCCATCTACCCCGGCAACGGCGACA
CCAGCTACAACAGAGTTCAAGGGCAAGGCCACCTGACCGCCGACAAGAGCAGCAGCACCCTACATGCACTGAGCAGCCTG
ACCAGCGAGGACAGCGCCGTGACTACTGCGCCCGGAGCACCTACTACGGCGGCGACTGGTACTTCAACGTGTGGGGCGCCGGCAC
CACCCTGACCGTCTCGAGC

>Sequence ID 261: αCD20 VL Amino Acid Sequence

QIVLSQSPAILSASPEKVTMTCRASSSVSYIHWFOQKPGSSPKPWIYATSNLASGVFVRFSGSGSGTSYSLTISRVEAEDAATYY
CQQWTSNPPTFGGGTKLTVL

>Sequence ID 262: αCD20 VL Nucleotide Sequence

CAGATCGTGCTGAGCCAGAGCCCCGCCATCCTGAGCGCCAGCCCCGGCGAGAGGTGACCATGACCTGCCGGGCCAGCAGCAGCGT
GAGCTACATCCACTGGTTCAGCAGAAGCCCGGCGAGCAGCCCCAAGCCTGGATCTACGCCACCAGCAACCTGGCCAGCGGCGTGC
CCGTGCGGTTACGGGCGAGCGGCGAGCGGACCACTGACGCTGACCATCAGCCGGGTGGAGCCGAGGACCGCCACCTACTAC
TGCCAGCAGTGACCAAGCAACCCCACTTCGGCGGCGGCACCAAGCTGACCGTGCTG

>Sequence ID 263: EGFR VHH Amino Acid Sequence

EVQLQESGGGLVQAGDSLSSLVSGRSFNSYTMGWFQAPGKEREFAAILWSGPTTYADSVKGRFTISRDNKNTVYLMNSL
KPEDTAVYYCAALGVLLAPGNVSYWGQGTQVTVSS

>Sequence ID 264: EGFR VHH Nucleotide Sequence

GAGGTGCAGCTGCAGGAGTCTGGCGGCGGCTGGTGCAGGCTGGGGACAGCCTGAGCCTGTCCTGCCTGGTGTCTGGCCGCTCCTT
CAACTCCTACACCATGGGCTGGTTCCGCCAGGCCCCCTGGGAAGGAGCGGAGTTTGTGGCTGCCATCCTGTGGAGTGGCCCCACCA
CCTACTATGCTGACTCTGTGAAGGCGGCTTCACCATCTCCAGAGACAATGCCAAGAACACTGTGTACCTGCAGATGAACAGCCTG
AAGCCAGAGGACACAGCTGTGTACTACTGTGCTGCTGCCCTGGGAGTGTGGTGTCTGGCCCTGGCAATGTGTACAGCTACTGGGG
CCAGGGCACCCAGGTGACTGTCTCGAGC

>Sequence ID 265: HER3 VHH Amino Acid Sequence

QVQLVQSGGGLVQAGGSLRLSCAFSGRTFSMYTMGWFRQAPGKEREFVAANRGRGLSPDIADSVNGRFTISRDNKNTLYLQMDSL
KPEDTAVYYCAADLQYGSSWFPQRSSAEYDYWGQTTVTVSS

>Sequence ID 266: HER3 VHH Nucleotide Sequence

CAGGTGCAGCTGGTGCAGTCTGGCGGAGGCTGGTGCAGGCTGGGGGACAGCCTGAGCCTGAGCTGTGCCTTCTCTGGCCGACCTT
CTCCATGTACACCATGGGCTGGTTCCGCCAGGCCCCAGGGAAGGAGAGAGTTTGTGGCTGCCAACAGAGGCAGAGGCTGAGCC
CAGACATTGCTGACTCTGTGAATGGCCGCTTCACCATCTCCAGAGACAATGCCAAGAACACCCCTGTACCTGCAGATGGACAGCCTG
AAGCCAGAGGACACAGCTGTGTACTACTGTGCTGCTGACCTGCAGTATGGCAGCAGCTGGCCTCAGAGGAGCTCTGCTGAGTATGA
CTACTGGGGCCAGGGCACCACTGTGACTGTCTCGAGC

>Sequence ID 267: α PD-L1 Stapled VH Amino Acid Sequence

EVQLLESGGGLVQPGGSLRLSCAASGFSFSSGYDMCWVRQAPGKCLEWIAAGSAGITYDANWAKGRFTISRDNKNTLYLQMN
SLRAEDTAVYYCARSAFSAFYAMDLDWGQTLVTVSS

>Sequence ID 268: α PD-L1 Stapled VH Nucleotide Sequence

GAGGTGCAGCTGTTGGAGTCTGGGGGAGGCTTGGTACAGCCTGGGGGTCCTGAGACTCTCCTGTGCAGCCTCTGGATTCTCCTT
CAGTAGCGGGTACGACATGTGCTGGTCCGCCAGGCTCCAGGGAAGTGCCTGGAGTGGATCGCATGCATTGCTGCTGGTAGTGCTG
GTATCACTTACGACGGAACCTGGGCGAAAGGCCGGTTACCATCTCCAGAGACAATCCAAGAACACGCTGTATCTGCAATGAAC
AGCCTGAGAGCCGAGGACACGGCGTATATTACTGTGCGAGATCGGCGTTTCGTTTCTGACTACGCCATGGACCTCTGGGGCCAGGG
AACCCTGGTCACCGTCTCGTCT

>Sequence ID 269: α PD-L1 Stapled VL Amino Acid Sequence

DIQMTQSPSTLSASVGRVTITCQASQSISSHLNHWYQQKPKAPKLLIYKASTLASGVPSRFSGSGSGTEFTLTISLQPDFFATY
YCQQGYSGWNVNDFGCGTKVEIK

>Sequence ID 270: α PD-L1 Stapled VL Nucleotide Sequence

GACATCCAGATGACCCAGTCTCCTTCCACCTGTCTGCATCTGTAGGAGACAGAGTCACCATCACTTGCCAGGCCAGTCAGAGCAT
TAGTTCCCACTTAAACTGGTATCAGCAGAAACCAGGGAAAGCCCTAAGCTCCTGATCTATAAGGCATCCACTCTGGCATCTGGGG
TCCCATCAAGGTTACGCGGCAGTGGATCTGGGACAGAATTTACTCTCACCATCAGCAGCCTGCAGCCTGATGATTTGCAACTTAT
TACTGCCAACAGGGTTATAGTTGGGGTAATGTTGATAATGTTTTCGGCTGCGGGACCAAGGTGGAGATCAAATAG

>Sequence ID 271: α 4-1BB VH Stapled Amino Acid Sequence

RSLVESGGGLVQPGGSLRLSCTASGFTISSYHMQWVRQAPGKCLEYIGTISGGNVYYASSARGRFTISRPSKNTVDLQMNLSRA
EDTAVYYCARDGYSYSDPMWGQTLVTVSS

>Sequence ID 272: α 4-1BB VH Stapled Nucleotide Sequence

CGGTCGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGTCCTGAGACTCTCCTGTACTGCCTCTGGATTACCATCAG
TAGCTACCACATGCAGTGGTCCGGCAGGCACCTGGGAAGTGCCTGGAGTACATCGGAACCATAGTAGTGGTGGTAATGTATACT
ACGCAAGCTCCGCTAGAGGCAGATTCACCATCTCCAGACCTCGTCCAAGAACACGGTGGATCTCAAATGAACAGCCTGAGAGCC
GAGGACACGGCTGTGTATTACTGTGCGAGAGACTCTGGTTATAGTGATCCTATGTGGGGCCAGGGAACCTGGTCACCGTCTCTTC
A

>Sequence ID 273: α 4-1BB VL Stapled Amino Acid Sequence

DVVMTQSPSSVSASVGRVTITCQASQNIPTYLSWYQQKPKAPKLLIYAAANLASGVPSRFSGSGSGTDFTLTISDLEPGDAATY
YCQSTYLGTDYVGGAFGCGTKVEIK

>Sequence ID 274: α 4-1BB VL Stapled Nucleotide Sequence

GACGTTGTGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCACCATCACCTGTGAGGCCAGTCAGAACAT
TAGGACTTACTTATCCTGGTATCAGCAGAAACAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCAGCCAATCTGGCATCTGGGG
TCCCATCAAGGTTGAGCGGAGTGGATCTGGGACAGATTCTACTCTCACCATCAGCGACTTGGACCTGGCGATGCTGCAACTTAC
TATTGTGCTACGTATCTTGGTACTGATTATGTTGGCGGTGCTTTCGGCTGTGGGACCAAGGTGGAGATCAAATGA

>Sequence ID 275: α Her3 VH Stapled Amino Acid Sequence

QVQLQESGGGLVKPGGSLRLSCAASGFTFSSYWMSWVRQAPGKCLEWVANINRDGSASYVDSVKGRFTISRDDAKNSLYLQMNSL
RAEDTAVYYCARDRGVGYFDLWGRGTLVTVST

>Sequence ID 276: α Her3 VH Stapled Nucleotide Sequence

CAGGTGCAATTGCAGGAGTCGGGGGAGGCCTGGTCAAGCCTGGAGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCTT
TAGTAGTTATTGGATGAGCTGGGTCCGCCAGGCTCCAGGGAAGTGCCTGGAGTGGGTGGCCAACATAAACCAGCGATGGAAGTGCGA
GTTACTATGTGGACTCTGTGAAGGCCGATTACCATCTCCAGAGACGACGCCAAGAACTCACTGTATCTGCAAATGAACAGCCTG
AGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAGATCGTGGGTGGGCTACTTCGATCTCTGGGGCGGTGGCACCCTGGTCAC
CGTGTCGACA

>Sequence ID 277: α Her3 VL Stapled Amino Acid Sequence

QSALTQPASVSGSPGQSITISCTGTSSDVGGYNFVSWYQQHPGKAPKLMYIDVSDRPSGVSDRFSGSKSGNTASLIISGLQADDEA
DYYCSSYGSSTHVFSGGKVTVL

>Sequence ID 278: α Her3 VL Stapled Nucleotide Sequence

CAGTCTGCCCTGACTCAGCCTGCCTCCGTGTCTGGGTCTCCTGGACAGTCGATCACCATCTCCTGCACTGGAACCAGCAGTGACGT
TGGTGGTTATAACTTTGTCTCCTGGTACCAACAACACCCAGGCAAGGCCCCAACTCATGATCTATGATGTCAGTGATCGGGCCT
CAGGGGTGTCTGATCGCTTCTCCGGCTCCAAGTCTGGCAACACGGCCTCCCTGATCATCTCTGGCCTCCAGGCTGACGACGAGGCT
GATTATTACTGTCAGTCTATATGGGAGCAGCAGCACTCATGTGATTTTCGGCTGTGGGACCAAGGTGACCGTCTTA

>Sequence ID 279: α CEA 656E11 VH Amino Acid Sequence

EVQLVESGGGLVQPGGSLRLSCAASGFSFSGTQYVCWVRQAPGKLEWIGCIYVDVANTYYATSVKGRFTISRDNKNTLYLQMNS
LRAEDTAVYYCASHDTVCAGCGLDLWGQGLTVTVSS

>Sequence ID 280: α CEA 656E11 VH Nucleotide Sequence

GAGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCTCCTT
CAGTGGCACCCAGTACGTGTGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGATCGGATGCATTTATGTGGATGTGGCTA
ACACTTACTACGCGACCTCCGTGAAGGGCAGATTACCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTTCAAATGAACAGC
CTGAGAGCCGAGGACACGGCTGTGTATTACTGTGCGAGTCATGATACTGTTTGTGCTGGTTGTGGTTTGGACTTGTGGGGCCAGGG
AACCCTGGTCACCGTCTCGAGC

>Sequence ID 281: α CEA 656E11 VL Amino Acid Sequence

DIQMTQSPSTLSASVGRVTITCQASENIYSNLAWYQQKPGKAPKLLIYDASTLASGVPSRFSGSGSGTEFTLTISLQPDFFATY
YCQSTYYNNIIYGAAFGGKVEIK

>Sequence ID 282: α CEA 656E11 VL Nucleotide Sequence

GACATCCAGATGACCCAGTCTCCTTCCACCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCACTTGCCAGGCCAGTGAGAACAT
TTACAGCAATTTAGCCTGGTATCAGCAGAAACAGGGAAAGCCCCCTAAGCTCCTGATCTATGATGCTTCCACTCTGGCATCTGGGG
TCCCATCAAGGTTGAGCGGAGTGGATCTGGGACAGAATTCACTCTCACCATCAGCAGCCTGCAGCCTGATGATTTTGAACCTTAT
TACTGCCAATCTACTTATTATAATAATATCATTATGGGGCTGCTTTCGGCGGAGGGACCAAGGTGGAGATCAAA

>Sequence ID 283: α HER2 VH Amino Acid Sequence

EVQLVESGGGLVQPGGSLRLSCAASGFNIKDTYIHWVRQAPGKLEWVARIYPTNGYTRYADSVKGRFTISADTSKNTAYLQMNSL
RAEDTAVYYCSRWGGDGFYAMDYWGQGLTVTVST

>Sequence ID 284: α HER2 VH Nucleotide Sequence

GAAGTACAGCTTGTGAGAGTGGTGGTGGACTTGTCCAACCAAGGGGGAAGTCTGCGGCTGTCATGCGCAGCCTCTGGCTTCAACAT
TAAGGACACCTACATTTACTGGGTTCGGCAAGCGCCGGGGAAGGGGCTGGAATGGGTGCCAGGATATACCTACCAACGGGTACA
CCAGGTATGCAGATAGCGTTAAGGGTAGATTCACTATTTAGCTGACACTAGCAAGAACACCGCGTATCTCCAGATGAAGTCCCTT
CGCGCCGAGGATACGGCTGTGTACTACTGCTCTAGGTGGGGAGGAGATGGGTTTACGCAATGGATTACTGGGGACAGGGAACACT
CGTTACGGTGTGACA

>Sequence ID 285: α HER2 VL Amino Acid Sequence

DIQMTQSPSSLSASVGDRVTITCRASQDVNTAVAWYQKPKGKAPKLLIYSASFLYSGVPSRFSGSRSGTDFTLTISSLQPEDFATY
YCQQHYHTPPTFGQGKVEIK

>Sequence ID 286: α HER2 VL Nucleotide Sequence

GACATCCAAATGACGCAGTCTCCCTCCAGTTTGAAGTCAAGTGTGGGAGACAGAGTTACGATCACATGTAGGGCAAGTCAAGACGT
CAATACAGCCGTGCGATGGTACGACAGAACCTGGAAAGGCCCGAAACTTCTGATTACTCTGCAAGTTTCTCTACAGTGGGTG
TTCTAGTCGCTTCAAGTGGGTCTCGGTCAAGCACCGATTTTACCTGACAATTAGCAGCTTGAACCGGAAGATTTGCGACCTAT
TATTGCCAGCAACATTATACACCCCTCCACATTTGGACAAGGCACGAGGTAGAGATTAA

>Sequence ID 287: SI-20C14 (anti-CEA 656E11) Heavy Chain Amino Acid Sequence

EVQLVESGGGLVQPGGSLRLSCAASGFSFSGTQYVCWVRQAPGKLEWIGCIYVDVANTYYATSVKGRFTISRDNKNTLYLQMNS
LRAEDTAVYYCASHDTVCAGCGLDLWGQGTLLTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGV
HTFPFVQLSSGLYSLSSVTVFPPSSSLGTQTYICNVNHKPSNTKVDKRVPEKSCDKTHTCPPCPAPEAAGAPSVFLFPPKPKDTLMI
SRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDLNKGKEYKCAVSNKALPAPIEKTISKAK
KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFC
SVMHEALHNHYTQKSLSLSPG

>Sequence ID 288: SI-20C14 (anti-CEA 656E11) Heavy Chain Nucleotide Sequence

GAGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCTCCTT
CAGTGGCACCCAGTACGTGTGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGATCGGATGCATTTATGTGGATGTGGCTA
ACACTTACTACGCGACCTCCGTGAAGGGCAGATTCAACATCTCCAGAGACAATCCAAGAACACGCTGTATCTTCAAATGAACAGC
CTGAGAGCCGAGGACACGGCTGTGTATTACTGTGCGAGTCATGATACTGTTTGTGCTGGTTGTGGTTTGGACTTGTGGGGCCAGGG
AACCTGGTCACCGTCTCGAGCGCTAGCACCAAGGGCCATCGGTCTTCCCCCTGGCACCCCTCCTCAAGAGCACCTCTGGGGGCA
CAGCGGCCCTGGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTACGGGTGTCGTGGAACCTCAGCGCCCTGACCAAGCGCGTG
CACACCTTCCCGGCTGTCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCA
GACCTACATCTGCAACGTGAATCAAGCCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAAATCTTGTGACAAAACCTCACA
CATGGCCACCGTGCCAGCACCTGAAGCGCGGGGGCACCGTCAGTCTTCTCTTCCCCCAAAACCAAGGACACCTCATGATC
TCCCCGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGT
GGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAAACAGCACGTACCGTGTGGTACGCGTCTCACCCTCTGCACC
AGGACTGGCTGAATGGCAAGGAGTACAAGTGCGCGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAAGGCC
AAAGGCGAGCCCGAGAACCAAGGTGTACACCTGCCCCATCCCGGATGAGCTGACCAAGAACCAAGGTGAGCTGACCTGCCTGCCT
GGTCAAAGGCTTCTATCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCTCCCG
TGCTGGACTCCGACGGCTCCTTCTCCTCTATAGCAAGCTCACCCTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGC
TCCGTGATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCTCTCCCTGTCTCCGGGTAA

>Sequence ID 289: SI-20C14 (anti-CEA 656E11) Light Chain Amino Acid Sequence

DIQMTQSPSTLSASVGDRVTITCQASENIYSNLAWYQKPKGKAPKLLIYDASTLASGVPSRFSGSGSGTEFTLTISLQPDFFATY
YQSTYYNNIIYGAAFGGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDS
KDSTYLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

>Sequence ID 290: SI-20C14 (anti-CEA 656E11) Light Chain Nucleotide Sequence

GACATCCAGATGACCCAGTCTCCTTCCACCCTGTCTGCATCTGTAGGAGACAGAGTCAACATCACTTGCCAGGCCAGTGAGAACAT
TTACAGCAATTTAGCTGTATCAGCAGAAACAGGGAAAGCCCTAAGCTCCTGATCTATGATGCTTCCACTCTGGCATCTGGGG
TCCCATCAAGGTTCAAGCGGAGTGGATCTGGGACAGAATCACTCTCACCATCAGCAGCCTGCAGCCTGATGATTTGCAACTTAT
TACTGCCAATCTACTTATTATAATAATATCATTATGGGGCTGCTTTCGGCGGAGGGACCAAGGTGGAGATCAAACGTACGGTGGC
TGCACCATCTGTCTTCTCTTCCGCCATCTGATGAGCAGTTGAAATCTGGAATGCCTCTGTTGTGTGCTGCTGAATAACTTCT
ATCCAGAGAGGGCCAAAGTACAGTGAAGGTGGATAACGCCCTCCAATCGGGTAACTCCAGGAGAGTGTACAGAGCAGGACAGC
AAGGACAGCACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAAGCAGACTACGAGAAACACAAAGTCTACGCTGCGAAGTCAC
CCATCAGGGCTGAGCTCGCCGTCAACAAGAGCTTCAACAGGGGAGAGTGTAG

>Sequence ID 291: α CD3***** VH Amino Acid Sequence

QQLVESGGGLVKPGGSLRLSCAASGIDLSSNAIGWVRQAPGKGLEWVGVI FGSGNTYYASWAKGRFTISRSKNTVYLQMNSLRAED
TAVYYCARGGYSSDIWGQGLVTVSS

>Sequence ID 292: α CD3***** VH Nucleotide Sequence

CAACAGTTGGTTGAGTCTGGTGGCGGTCTCGTTAAGCCTGGAGGGTCCCTTCGGCTTAGTTGTGCGGCCTCTGGGATCGACCTGTC
TAGCAACGCTATAGGATGGGTACGGCAAGCTCCGGGCAAAGGCCCTTGAAGTGGTTCGGCTTATTTTGGGAGCGGTAATACGTACT
ACGCCAGCTGGGCAAAGGTAGGTTCACTATCAGTCGATCAAAGAACACGGTATATCTTCAGATGAACAGTCTCCGGCGGAGGAC
ACCGCGGTTTATTATTGCGCAAGGGGGGATACTCCTCAGACATATGGGGCCAAGGTACTTTGGTGACGGTCTCGAGC

>Sequence ID 293: α CD3***** VL Amino Acid Sequence

DPVLTSQSPSSLSASVGDRTVISCQSSQSVAKNNNLAWFQQKPGQAPKLLIYASTLAAGVPSRFSGSGSGTDFTLTISVQPEDFA
TYYCSARDSGNIQSFGGGTKEIK

>Sequence ID 294: α CD3***** VL Nucleotide Sequence

GATCCAGTTCTGACACAAAGTCCATCCAGCCTGTCTGCCTCAGTCGGCGACAGAGTGACCATCAGTTGCCAGAGCTCACAGTCTGT
GGCTAAGAACAACTTGGCGTGGTTCCAACAGAAACCTGGACAGGCTCCGAAATTGCTGATCTATTCTGCTCCACGCTTGTG
CTGGTGTTCCTTCCCGCTTTTCAGTAGTGGTAGCGGGACAGACTTCACTTTGACTATAAGCAGCGTGCAGCTGAAGATTTTGC
ACCTACTATTGTTCTGCTAGAGACAGTGGAAATATTAGTCCTTTGGGGGGGAACGAAGGTGAAATAAAG

>Sequence ID 295: NKG2D Monomer Amino Acid Sequence

FLNSLFNQEVQIPLTESYCGPCPNWICYKNNCYQFFDESKNWYESQASCMSQNASLLKVYSKEDQDLLKLKVSYHWMGLVHIPTN
GSQWQEDGSILSPNLLTIEMQKGDICALYASSFKGYIENCSTPNTYICMQRTV

>Sequence ID 296: NKG2D Monomer Nucleotide Sequence

TTTCTGAATAGCCTGTTCAACCAGGAGGTGCAGATCCCAGTACCGAGAGCTATTGTGGACCTTGTCCTAAGAACTGGATCTGT
CAAGAACAACTGCTACCAAGTCTTCGACGAGAGCAAGAATTGGTATGAAAGCCAGGCCAGCTGCATGAGCCAAAACGCCTCTCTGC
TGAAAGTGTACTCCAAGAAAGATCAGGACCTGCTGAAGCTGGTGAGCTCCTACCACTGGATGGGCTGGTGACATCCCAACCAAC
GGCAGCTGGCAGTGGGAAGACGGCAGCATCCTGAGCCCTAACCTGCTGACAATCATTGAGATGCAGAAAGGCGACTGCGCCCTGTA
CGCCAGTTCTTTAAGGGCTACATCGAAAAGTGTAGCACCCCTAACACCTACATCTGCATGCAGAGAAGAGTG

>Sequence ID 297: SI-75XM9 chain A amino acid sequence

QVQLQESGGRLVQPGEPISLTCKTSGIDLSSNAIGWVRQAPGKGLEWIGVIFGSGNTYYASWAKGRFTISRSTSTVYLMNLSLRSE
DTAIYYCARGGYSSDIWGQGLVTVSSASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQS
SGLYSLSSVTVGPGSTGTGACCGTGTGAGCTGTGGAAGTCTGGCGCTGCTGACATCTGGCGTGCACACCTTTCCAGCTGTGCTGAGTCC
VSQEDPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIKAKGQPREPQVYTL
PPSQEEMTKNQVSLTSCAVKGFPYSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLVSRITVDKSRWQEGNVFSCSVMHEALHNHYT
QKSLSLSLG

>Sequence ID 298: SI-75XM9 chain A nucleotide sequence

CAAGTGCAGTTGCAAGAAAGTGGTGGTAGACTGGTTCAGCCTGGTGAACCCCTTGTCAGTGCAGTGTAAACAAGCGGCATTGATCT
GTCTCTAACGCCATCGGATGGGTCCGACAGGCCCCAGGAAAAGGTCTGGAGTGGATCGGAGTTATCTTCGGGAGCGGCAATACAT
ACTACGCAAGCTGGGCAAAGGGCGATTTACGATATCACGGAGCACCTCTACAGTTTATTTGAAAATGAACTCCCTCCGGTCCGAG
GATACCGCGATATATTACTGTGCCAGAGGGGGTACTCCTCTGATATCTGGGGGCAGGGTACACTGGTTACAGTTTCATCCGCTAG
CACCAAGGGACCTCTGTGTTTCTCTGGCTCCTTGCTCCAGATCCACCTCCGAGTCTACAGCTGCTCTGGGCTGCCTGGTCAAGG
ACTACTTTCTGAGCTGTGACCGTGTGCTGGAAGTCTGGCGCTGCTGACATCTGGCGTGCACACCTTTCCAGCTGTGCTGAGTCC
TCCGGCCTGTACTCTCTGTCTCTGTCTGCTGACCGTGCCTTCTCTAGCTGGGCACCAAGACCTACACCTGTAATGTGGACCACAA
GCCTTCCAACCAAGGTGGACAAGCGCGTGGAAATCTAAGTACGGCCCTCCTTGTCCTCCATGTCCTGCTCCAGAAGCTGCTGGCG
GCCCCATCCGTGTTTCTGTTCCCTCCAAAGCCTAAGGACACCTGATGATCTCTCGGACCCCTGAAGTGACCTGCGTGGTGGTGGAT
GTGTCCCAAGAGGATCCCGAGGTGCAGTTCAATTGGTACGTGGACGGCGTGGAAAGTGACAACGCCAAGACCAAGCCTAGAGAGGA
ACAGTTCACTCCACCTACAGAGTGGTGTCCGTGCTGACCGTGTGACCAAGGATTGGCTGAACGGCAAAGAGTACAAGTGCAAGG
TGTCCAACAAGGGCTGCCTTCCAGCATCGAAAAGACCATCTCCAAGGCCAAGGGCCAGCCTAGGGAACCCAGGTTTACACCTG
CCTCCAAGCCAAGAGGAAATGACCAAGAACCAGGTGTCCCTGTCTGCGCCGTGAAGGGCTTCTACCTTCCGATATCGCCGTGGA
ATGGGAGAGCAATGGCCAGCCTGAGAACAACACAGACAACCCCTCCTGTGCTGGACTCCGACGGCTCCTTCTCTCTGCTGCTCC

GCCTGACCGTGGACAAGTCCAGATGGCAAGAGGGCAACGTGTTCTCCTGCTCCGTGATGCACGAGGCCCTGCACAATCACTACACC
CAGAAGTCCCTGTCTCTGTCCCTGGGATGA

>Sequence ID 299: SI-75XM9 chain B amino acid sequence

QSALTQPASVSGSPGQSITISCTGTSSDVGGYNFVSWYQQHPGKAPKLMYIDVSDRPSGVSDRFSGSKSGNTASLIISGLQADDEA
DYICSSYSSSTHVIFGGGTKVTVLGGGSGGGGSGGGGSGGGGSGVQLQESGGGLVKPGGSLSLSCAASGFTFSSYWMSWVRQAP
GKGLEWVANINRDGSASYVDSVKGRFTISRDDAKNSLYLQMNLSRAEDTAVYYCARDRGVGYFDLWGRGTLTVVSSGGGSGGGG
SDPQLTQSPSSLSATVGRVTINCQSSQSVAKNNNLAWFQQKPGKPKLLIYSASTLAAGVPSRFSGSGSGTQFTLTITRVQSEDF
ATYYCSARDSGNIQSFSGGGRVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDS
KDSTYLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGECGGGPPCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVT
CVVVDVSQEDPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVTLHQDWLNGKEYCKVSNKGLPSSIEKTI SKAKGQPREP
QVYTLPPSQEEMTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSRLTVDKSRWQEGNVFSCSVMEAL
HNRFTQKSLSLSLG

>Sequence ID 300: SI-75XM9 chain B nucleotide sequence

CAGTCTGCCCTGACTCAGCCTGCCTCCGTGTCTGGGTCTCCTGGACAGTCGATCACCATCTCCTGCACTGGAACCAGCAGTGACGT
TGGTGGTTATAACTTTGTCTCCTGGTACCAACAACACCCAGGCCAAAGCCCCAACTCATGATCATGATGTCTCAGTGATCGGCCCT
CAGGGGTGTCTGATCGCTTCTCCGGCTCCAAGTCTGGCAACACGGCCTCCCTGATCATCTCTGGCCTCCAGGCTGACGACGAGGCT
GATTATTACTGCAGCTCATATGGGAGCAGCAGCACTCATGTGATTTTCGGCGGAGGGACCAAGGTGACCGTCTTAGGCGGTGGCGG
TAGTGGGGGAGGCGGTTCTGGCGGCGGAGGGTCCGGCGGTGGAGGATCACAGGTGCAATTGCAGGAGTCCGGGGGAGGCCTGGTCA
AGCCTGGAGGGTCCCTGAGCCTCTCTGTGCAGCCTCTGGATTACCTTTAGTAGTTATTGGATGAGCTGGGTCCGCCAGGCTCCA
GGGAAGGGGCTGGAGTGGGTGGCCAAACATAAACCCGCGATGGAAGTGCAGGTTACTATGTGGACTCTGTGAAGGGCCGATTACCAT
CTCCAGAGACGACGCCAAGAACTCACTGTATCTGCAAATGAACAGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAG
ATCGTGGGGTGGGCTACTTCGATCTCTGGGGCGGTGGCACCCCTGGTCACCGTCTCGAGTGGCGGTGGAGGGTCCGGCGGTGGTGGGA
TCAGATCCTCAATTGACCCAGTCCCTAGTAGCCTTTCTGCAACCGTGGGCCAGAGGGTAACAATCAATTGCCAGTCAAGCCAGTCC
CGTAGCGAAGAATAATAATTTGGCATGGTTCCAACAAAAACCGGGTAAACCTCCTAACTCCTTATCTACTCAGCTTCAACCCCTTG
CCGGCGGTGTGCCAGCCGGTTCTCAGGCTCAGGTTCCGGGACTCAATTACACTTACCATCACTCGCTCCAAAGTGAGGATTTT
GCAACCTACTATTGTTCTGCACGGGATTCCGGGAACATACAGTCCTTTGGGGGTGGAACCTCGGGTGGAGATAAAACGTACGGTGGC
TGCACCATCTGTCTTCATCTCCCGCCATCTGATGAGCAGTTGAAATCTGGAACCTGCCTCTGTTGTGTGCTGTGAATAACTTCT
ATCCCAGAGAGGGCCAAAGTACAGTGAAGGTGGATAACGCCCTCCAATCGGGTAACTCCCAGGAGAGTGTACAGAGCAGGACAGC
AAGGACAGCACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAGCAGACTACGAGAAACACAAAGTCTACGCCTGCGAAGTACAC
CCATCAGGGCTGAGCTCGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTGGCGGCGGACCTCCTTGTCTCCATGTCTGCTC
CAGAACTGCTGGCGGCCCCATCCGTGTTCTGTTCCCTCCAAAGCCTAAGGACACCCCTGATGATCTCTCGGACCCCTGAAGTGACC
TGCGTGGTGGTGGATGTGTCCCAAGAGGATCCCGAGGTGCAGTTCAATTGGTACGTGGACGGCGTGGAAAGTGCACAACGCCAAGAC
CAAGCTAGAGAGGAACAGTTCAACTCCACCTACAGAGTGGTGTCCGTGCTGACCGTGTGCACAGGATTGGCTGAACGGGCAAG
AGTACAAGTGCAAGGTGTCCAACAAGGGCCTGCCTTCCAGCATCGAAAAGACCATCTCCAAGGCCAAGGGCCAGCCTAGGGAACCC
CAGGTTTACACCTGCCTCCAAGCCAAGAGGAAATGACCAAGAACAGGTGTCCCTGTGGTGCCTCGTGAAGGGCTTCTACCCCTTC
CGATATCGCCGTGGAATGGGAGAGCAATGGCCAGCCTGAGAACAACTACAAGACAACCCCTCCTGTGCTGGACTCCGACGGCTCCT
TCTTCTGTATTCCCGCTGACCGTGGACAAGTCCAGATGGCAAGAGGGCAACGTGTTCTCCTGCTCCGTGATGCACGAGGCCCTG
CACAATCGCTTACCCAGAAGTCCCTGTCTCTGTCCCTGGGATGA

>Sequence ID 301: anti-CEA 656E11 CDR-H1 amino acid sequence

GTQYVC

>Sequence ID 302: anti-CEA 656E11 CDR-H2 amino acid sequence

CIYVDVANTYYATSVKG

>Sequence ID 303: anti-CEA 656E11 CDR-H3 amino acid sequence

HDTVACGCLDL

>Sequence ID 304: anti-CEA 656E11 CDR-L1 amino acid sequence

QASENIYSNLA

>Sequence ID 305: anti-CEA 656E11 CDR-L2 amino acid sequence

DASTLAS

>Sequence ID 306: anti-CEA 656E11 CDR-L3 amino acid sequence

QSTYYNNIIYGAA

>Sequence ID 307: anti-CD3 283E3 (BSM/FRS) CDR-H1 amino acid sequence

SNAIG>Sequence ID 308: anti-CD3 283E3 (BSM/FRS) CDR-H2 amino acid sequence

VIFGSGENTYYASWAKG

>Sequence ID 309: anti-CD3 283E3 (BSM/FRS) CDR-H3 amino acid sequence

GGYSSDI

>Sequence ID 310: anti-CD3 283E3 (BSM/FRS) CDR-L1 amino acid sequence

QSSQSVAKNNLA

>Sequence ID 311: anti-CD3 283E3 (BSM/FRS) CDR-L2 amino acid sequence

SASTLAA

>Sequence ID 312: anti-CD3 283E3 (BSM/FRS) CDR-L3 amino acid sequence

SARDSGNIQS

>Sequence ID 313: human IgG1 amino acid sequence

ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVN
HKPSNTKVDKRVPEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKT
KPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPS
DIAVEWESNGQPENNYKTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFCSCVMHEALHNHYTQKSLSLSPG

>Sequence ID 314: human IgG4 amino acid sequence

ASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYTCNVD
HKPSNTKVDKRVESKYGPPCPCPAPAEFLGGPSVFLFPPKPKDTLMI SRTPEVTCVVVDVSDQEDPEVQFNWYVDGVEVHNAKTKPR
EEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTI SKAKGQPREPQVYTLPPSQEEMTKNQVSLTCLVKGFYPSDIA
VEWESNGQPENNYKTPPVLDSDGSFFLYSRLTVDKSRWQEGNVFCSCVMHEALHNHYTQKSLSLSLG