CLAIMS

WHAT IS CLAIMED IS:

~~1. An isolated polypeptide comprising a modified sequence that is at least 75% identical to an IgG Fc region, wherein the modified sequence is free of sialylation and the polypeptide has an anti-inflammatory activity that is higher than that of a parent polypeptide.~~

~~2. The isolated polypeptide of claim 1, wherein the parent polypeptide comprises the IgG Fc region.~~

~~3. The isolated polypeptide of claim 1 or 2, wherein the IgG Fc region comprises the sequence of SEQ ID NO: 1.~~

~~4. The isolated polypeptide of any one of claims 1-3, wherein the isolated polypeptide has an ability to bind to DC-SIGN.~~

~~5. The isolated polypeptide of any one of claims 1-4, wherein the isolated polypeptide has an ability to bind to hFcγRIIA or RIIB~~

~~6. The isolated polypeptide of any one of claims 1-5, wherein the isolated polypeptide has an ability to bind to hFcγRIIA or RIIB at a K_D of $2x10^{-5}$ M or lower (i.e., K_A of $5.0 x 10^4 M^{-1}$ or higher).~~

~~7. The isolated polypeptide of any one of claims 1-6, wherein the modified sequence has a FA241 mutation.~~

1~~8~~. A polypeptide consisting of an amino acid sequence ~~The isolated polypeptide of any one of claims 1-7, wherein the modified sequence is~~ at least 80~~75~~% identical to SEQ ID NO: 2, wherein amino acid residue 241 (numbered according to the EU index of Kabat) of the polypeptide, which corresponds to amino acid residue 32 of SEQ ID NO: 2, is an alanine (A).

2~~9~~. The ~~isolated~~ polypeptide of claim 1~~8~~, wherein the amino acid ~~modified~~ sequence is at least 85~~80~~% identical to SEQ ID NO: 2.

3~~10~~. The ~~isolated~~ polypeptide of claim 1~~9~~, wherein the amino acid ~~modified~~ sequence is at least 90% identical to SEQ ID NO: 2.

4~~11~~. The ~~isolated~~ polypeptide of claim 1~~0~~, wherein the amino acid ~~modified~~ sequence is at least 95% identical to SEQ ID NO: 2.

5~~12~~. The ~~isolated~~ polypeptide of claim 1~~1~~, wherein the amino acid ~~modified~~ sequence is at least 99% identical to SEQ ID NO: 2.

6~~13~~. The ~~isolated~~ polypeptide of claim 1~~2~~, wherein the polypeptide has the amino acid sequence according to ~~modified sequence comprises~~ SEQ ID NO: 2.

7. The polypeptide of claim 8, wherein the polypeptide is sialylated.

8. The polypeptide of claim 8, wherein the polypeptide is not sialylated.

~~14. The isolated polypeptide of claim 9, wherein the modified sequence consists essentially of SEQ ID NO: 2.~~

~~15. A method for making a polypeptide having an anti-inflammatory activity, the method comprising:~~

~~providing a parent polypeptide having the sequence of an IgG Fc region or a first nucleic acid sequence encoding the parent polypeptide; and~~

~~modifying the parent polypeptide to obtain a modified polypeptide so that the modified polypeptide is free of sialylation and mimics the structural of a sialylated form of the IgG Fc region.~~

~~16. The method of claim 15, wherein the modifying step is conducted by modifying the first nucleic acid sequence to obtain a second nucleic acid encoding the modified polypeptide.~~

~~17. A polypeptide made by the method of claim 15 or 16.~~

~~18. An isolated nucleic acid comprising a sequence encoding the polypeptide of any of claims 1-14 and 17.~~

~~19. An expression vector comprising a nucleic acid of claim 18.~~

~~20. A host cell comprising a nucleic acid of claim 18.~~

~~21. A method of producing a polypeptide, comprising culturing the host cell of claim 20 in a medium under conditions permitting expression of a polypeptide encoded by the nucleic acid, and purifying the polypeptide from the cultured cell or the medium of the cell.~~

9~~22~~. A pharmaceutical <u>composition, </u>~~formulation~~ comprising (i) the polypeptide of ~~any of~~ claim~~s~~ 1~~-14 and 17 or a nucleic acid of claim 18~~, and (ii) a pharmaceutically acceptable carrier.

<u>10. A polypeptide of claim 1 for use in therapy.</u>

~~23. A method of treating an inflammatory disease, comprising administering to a subject in need thereof a therapeutically effective amount of the polypeptide of any of claims 1-14 and 17, or a nucleic acid encoding the polypeptide.~~

~~24. An isolated polypeptide, nucleic acid, expression vector, host cell, or composition substantially as shown and described herein.~~

~~25. A method for treating an inflammatory disease substantially as shown and described herein.~~

11~~26~~. Use of a polypeptide of ~~any of~~ claim~~s~~ 1~~-14 and 17 or a nucleic acid of claim 18~~ in the manufacture of a medicament for treating an inflammatory disorder~~disease~~ in an individual in need thereof.

12. The use of claim 11, wherein the inflammatory disorder is an autoimmune disease.

13. The use of claim 11, wherein the inflammatory disorder is an inflammatory bowel disease, an inflammatory dermatosis, a hypersensitivity lung disease, or an acute or chronic inflammatory disease.

14. The use of claim 11, wherein the inflammatory disorder is psoriasis, rheumatoid arthritis, psoriatic arthritis, multiple sclerosis, lupus, type I diabetes, primary biliary cirrhosis, asthma, acute respiratory distress syndrome, fulminant hepatitis, myasthenia gravis, juvenile onset diabetes, glomerulonephritis, autoimmune thyroiditis, ankylosing spondylitis, systemic sclerosis, or Sjogren's syndrome.

15. The use of claim 13, wherein the inflammatory bowel disease is Crohn’s disease or ulcerative colitis.

16. The use of claim 13, wherein the inflammatory dermatosis is dermatitis, eczema, atopic dermatitis, allergic contact dermatitis, urticaria, necrotizing vasculitis, cutaneous vasculitis, hypersensitivity vasculitis, eosinophilic myositis, polymyositis, dermatomyositis, or eosinophilic fasciitis.

17. The use of claim 13, wherein the hypersensitivity lung disease is hypersensitivity pneumonitis, eosinophilic pneumonia, delayed-type hypersensitivity, interstitial lung disease (ILD), idiopathic pulmonary fibrosis, or ILD associated with rheumatoid arthritis.

18. The use of claim 13, wherein the acute or chronic inflammatory disease is systemic anaphylaxia, allograft rejection, or graft-versus-host disease.