CLAIMS

WHAT IS CLAIMED IS:

1. An isolated polypeptide comprising a modified sequence that is at least 75% identical to an IgG Fc region and has a substitution at a position corresponding to F241 of SEQ ID No: 1, 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 5.0×10^4 M^{-1} or higher).

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

8. The isolated polypeptide of any one of claims 1-7, wherein the modified sequence is at least 75% identical to SEQ ID NO: 2.

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

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

11. The isolated polypeptide of claim 10, wherein the modified sequence is at least 95% identical to SEQ ID NO: 2.

12. The isolated polypeptide of claim 11, wherein the modified sequence is at least 99% identical to SEQ ID NO: 2.

13. The isolated polypeptide of claim 12, wherein the modified sequence comprises SEQ ID NO: 2.

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 structure~~al~~ of a sialylated form of the IgG Fc region, wherein the modifying step comprises introducing a substitution at a position corresponding to F241 of SEQ ID No: 1.

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.

22. A pharmaceutical formulation comprising (i) the polypeptide of any of claims 1-14 and 17 or a nucleic acid of claim 18, and (ii) a pharmaceutically acceptable carrier.

23. ~~Use of the polypeptide of any of claims 1-14 and 17, or a nucleic acid encoding the polypeptide in the manufacture of a medicament for treating an inflammatory disease.~~

~~24.~~ Use of a polypeptide of any of claims 1-14 and 17 or a nucleic acid of claim 18 in the manufacture of a medicament for treating an inflammatory disease.