

CLAIMS

1. A modified IgG comprising: a canine IgG constant domain comprising at least one amino acid substitution relative to a wild-type canine IgG constant domain, wherein said substitution is at amino acid residue 434, numbered according to the EU index as in Kabat.
2. The modified IgG of claim 1, wherein said substitution is a substitution of asparagine at position 434 with histidine (N434H).
3. The modified IgG of claim 1, wherein the modified IgG has an increased half-life compared to the half-life of an IgG having the wild-type canine IgG constant domain.
4. The modified IgG of claim 1, wherein the modified IgG has a higher affinity for FcRn than the IgG having the wild-type canine IgG constant domain.
5. The modified IgG of claim 1, wherein the modified IgG is a canine or caninized IgG.
6. The modified IgG of claim 1, wherein the IgG constant domain comprises an Fc constant region having CH2 or CH3 domain, or a combination thereof.
7. The modified IgG of claim 3, wherein the wild-type canine IgG constant domain comprises the amino acid sequence set forth in SEQ ID NO.: 2.
8. The modified IgG of claim 4, wherein the wild-type canine IgG constant domain comprises the amino acid sequence set forth in SEQ ID NO.: 2.
9. A pharmaceutical composition comprising the modified IgG of claim 1 and a pharmaceutically acceptable carrier.
10. A kit comprising the modified IgG of claim 1, in a container, and instructions for use.
11. A polypeptide comprising the modified IgG of claim 1.
12. A fusion molecule comprising the modified IgG of claim 1.
13. An immunoglobulin molecule comprising the modified IgG of claim 1.

14. Use of an immunoglobulin molecule for the manufacture of a medicament, wherein said immunoglobulin molecule is the molecule of claim 13.
15. Use of an immunoglobulin molecule for increasing its serum half-life in a dog, wherein said immunoglobulin molecule is the molecule of claim 13.
16. The use of claim 15, wherein the molecule increases the half-life for a period ranging from about 25 days to about 35 days.
17. The use of claim 15, wherein the molecule increases the half-life for about 30 days.
18. The immunoglobulin molecule of claim 13, wherein said immunoglobulin is an anti-IL31 or an anti-NGF molecule.