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(54) **Title:** COMPOSITIONS FOR INCREASING HALF-LIFE OF A THERAPEUTIC AGENT IN CANINES AND METHODS OF USE

FIG. 1

CaIgG-A MESVPCNKVEL VVILKGVQGE VQLVESGGDL VKPQGLRLS EVASGPTFSS 50
CaIgG-B ---LF--- -T--- -R--- -K--- ---RR 50
CaIgG-C ---LV--- -A--- -D--- -S--- ---D 50
CaIgG-D ---L--- -S--- ---D--- -S--- ---D 50

CaIgG-A YMHIRIRAR KGLQKVAHI RGDGRTHYA DAMKGRFTIS RDAKNTLV 100
CaIgG-B -S-D-V- -S-W-G- N--TG-S-S QTV- - 100
CaIgG-C CA-S-V- -P-P-W-T- Y--SDTY- -S- -W- 100
CaIgG-D -G-S-V-S- -N-AV SNR- D-Y- - 100

CaIgG-A QMSLITVEPT SIVSRVKDI YGVVG D YWGQGTLLTV SSASTTAPSV 150
CaIgG-B -I---RA- -A-S-W SRMG DL- - -V- -DP- - 150
CaIgG-C ---RA- -A-A-P PYDS-HY-M- -P-SLF- - 150
CaIgG-D -S--KA- -EHEVIGVM PRH--M - H--N--SLF- - 150

CaIgG-A FFLAPSGGST SGSTVALACL VSGYPPEPVT VSMNSGSLTS GVHTFSPVLQ 200
CaIgG-B ---Q--- -T--- -V--- - 200
CaIgG-C ---Q--- -T--- -V--- - 200
CaIgG-D ---Q--- -T--- -V--- - 200

CaIgG-A SSGHLSLSM VIVPSRMPV ETFTCNVVPV ASNTKVDKPV FNECRCTDT 250
CaIgG-B ---Y--- -A--- -P-K--- -PKRNGRVPR 250
CaIgG-C ---Y--- -A--- -T--- -AK-E-KC N 250
CaIgG-D ---Y--- -T--- -PK-ST-KCI 250

CaIgG-A PPCPVP EPLGGPSVLI FPPKPKDILR ITRTPVTCV VLDGREDPE 300
CaIgG-B PPDCK-K-A- -N- -F- -TLL -A- -V- -DP- - 300
CaIgG-C CNMC -QC- -GL- -F- -TA- -V- -DP- - 300
CaIgG-D SP- -ES- -F- -I- - 300

CaIgG-A VQISWFEVQK EYHTAKTSR EQQKATVTV VSVLPRIHQD MLTGKRFKCR 350
CaIgG-B ---QMQ--- -P- -R- -G- -K- -Q- -T- -K 350
CaIgG-C ---S- -Q- -N- -P- -E- -S- -G- -S- -Q- -K 350
CaIgG-D ---S- -P- -S- - 350

CaIgG-A VSHIDLPSPI ERTISKAGR AHKPSVTVLP PSPKELSSSD TVSITCLIKD 400
CaIgG-B -NKA- -EI- -Q- -Q- -RE- -K N -L- - 400
CaIgG-C -NKA- -EI- -TP- -Q- -Q- -ED- -M- -K N -TL- - 400
CaIgG-D -G- -Q- -Q- -Q- - 400

CaIgG-A FYPPDIQVEN QSNQGOEPR KHRMTPPOLD EDGSYFLYSK LSVDKSRWQ 450
CaIgG-B -F- -E- -S- -Y- -T- - 450
CaIgG-C -P- -E- -S- -Y- -M- - 450
CaIgG-D -P- -E- -S- -YHT- -A- - 450

CaIgG-A GQDFTCAVMH ETLQNHVYDL SLSHSPK 500
CaIgG-B -T- -I- -A- -H- -QE- - 500
CaIgG-C -T- -I- -A- -H- -QT- - 500
CaIgG-D -T- -I- -A- - 500

- (57) **Abstract:** Provided are compositions for increasing the half-life of a polypeptide or polypeptides in a canine and methods of their use. The compositions involve variant canine IgG Fc regions.

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