

**S3 Fig:** Clustal Omega alignment of hlgG1, rlgG, and plgG1 heavy chain (A) and light chain (B) constant regions with constant region numbering based on the human heavy and light chains. An asterisk (\*) indicates a fully conserved residue, a colon (:) indicates strong similarity between residues, and a period (.) indicates weakly similar properties between residues. Bold and underlined, contact interface with Fc region of hlgG1<sup>1</sup>. Contact interface residues conserved in rabbit and pig also bold and underlined.

**A. IgG1 heavy chain Clustal Omega Alignment:**

human	ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSS	177
rabbit	GQPKAPSVFPLAPCCGDTSPSTVTLGCLVKGYLPEPVTVTWNSGTLTNGVRTFPSVRQSS	177
pig	APKTAPSVYPLAPCGRDTS GPNVALGCLASSYFPEPVTMTWNSGALTSGVHTFPSVLQPS	177
	. . .***:***. . * . . :***...*:*****:*****:***.***:***: * * *	
human	GLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDKTHTCPPCPAPE <b><u>LLGG</u></b>	237
rabbit	GLYSLSSVVSVTSS---SQPVTCNVAHPATNTKVDKTVPASTCSK----PTCPPPE <b><u>LLGG</u></b>	237
pig	GLYSLSSMVTVPASSLSKSYTCNVNHPATTTKVDKRVGTKTKPP---CPICPGCE- <b><u>VAG</u></b>	237
	*****:***: * : * : * * * :***** * . : * * * * :.*	
human	<b><u>PS</u></b> VF LFPKPKD TLMI SRTP EVCV VVDV SHEDPEVKF <b><u>NWYVD</u></b> GVEVHNAKTKPREEQ <b><u>YN</u></b>	297
rabbit	<b><u>PS</u></b> VF IFPPKPKD TLMI SRTP EVCV VVDV SEDDPEVQ <b><u>FTWY</u></b> INNEQV RTARPPLE <b><u>QQFN</u></b>	297
pig	<b><u>PS</u></b> VF IFPPKPKD TLMI SQTP EVCV VVDV SKEHAEVQ <b><u>FSWYVD</u></b> GVEVHTAETRPKEE <b><u>QFN</u></b>	297
	***:*****:*****:*****:.. *:***:.. : :*. . :*:*:*	
human	<b><u>ST</u></b> YRVVSVLTVLHQD WLN GKEYKCKVSNKAL <b><u>P</u></b> API EKTISKAKGQPREPQVYTLPPSREE	357
rabbit	<b><u>ST</u></b> IRVVS TLPIAHEDWLRGKEFKCKVHNKAL <b><u>P</u></b> API EKTISKARGQPLEPKVYTMGPPREE	357
pig	<b><u>ST</u></b> YRVVSVLPIQH QDWLKGKEFKCKVNNVDL <b><u>P</u></b> API TRTISKAI GQSREPQVYTLPPPAEE	357
	** * ** * . * : * : * * . * * : *	
human	MTKNQVSLTCLVKGFYPSDIAVEWESNGQP--ENNYKTTTPVLDS DGSFFLYSKLTVDKS	415
rabbit	LSSRSVSLTCMINGFYPSDISVEWEKNGKA--EDNYKTTPAVLDS DGSYFLYKLSVPTS	415
pig	LSRSKVTVTCLVIGFYPPDIHVEWKSNGQPEPEGNRYRTTPPQQD VDGTFFLYKLAVDKA	415
	:: .*:***: * * * * * : *	
human	RWQQGNVFSCSV MHEALHNHYTQKSLSLSPGK	447
rabbit	EWQRGDVFTCSVMHEALHNHYTQKSI SRSPGK	447
pig	RWDHGETFECAVMHEALHNHYTQKSI SKTQ GK	447
	.*:***: *	

**B. Kappa light chain constant region:**

human	RTVAAPSVFIFPPSDEQLKSGTASVVC LLNMFYPREAKVQWKVDNALQSGNSQESVTEQD	167
rabbit	RDPVAPSVLLFPPSKEELTTGTATIVCVANKFYPSDITV TWKVDGTTQQSGIENSKTPQS	167
pig	RADAKPSVFIFPPSKEQLETQTVSVVCLLN SFPREVNVKWKVDGVVQSSGILDSVTEQD	167
	* . ***:***.***: * * * * * : * * * * * : * * * * * : * * * * * . * * * * . * * * * . * * * *	
human	SKDSTYLSSTLTL SKADY EKHKVYACEVTHQGLSSP <b><u>V</u></b> TKSFNRGEC--	214
rabbit	PEDNTYLSSTLSL TSAQYN SHSVYTCEVV--QGSASPIVQSFNRGDC--	214
pig	SKDSTYLSSTLSL P TSOYLSHNLYSCEVTHKTLASPLVKSF SRNECEA	214
	:*.*****: * . : * * . * : * * * * * : * * * * * . * * * * . * * * *	