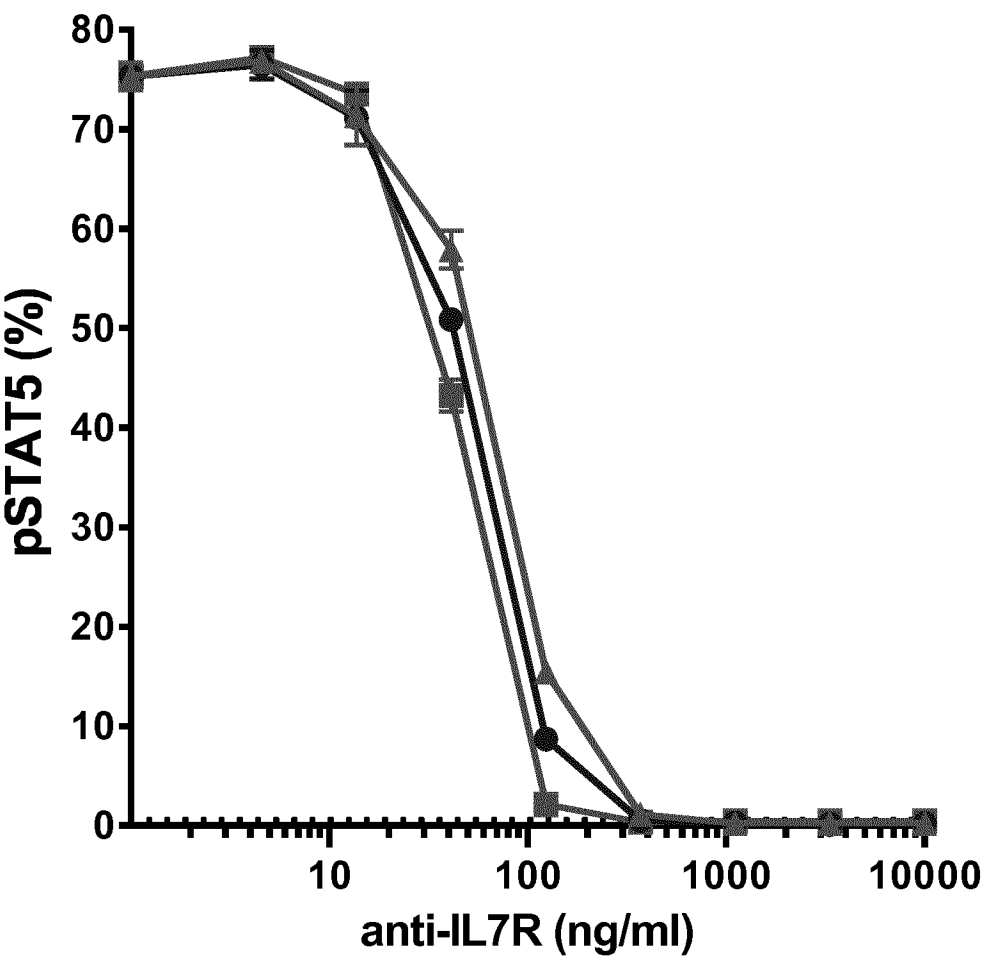
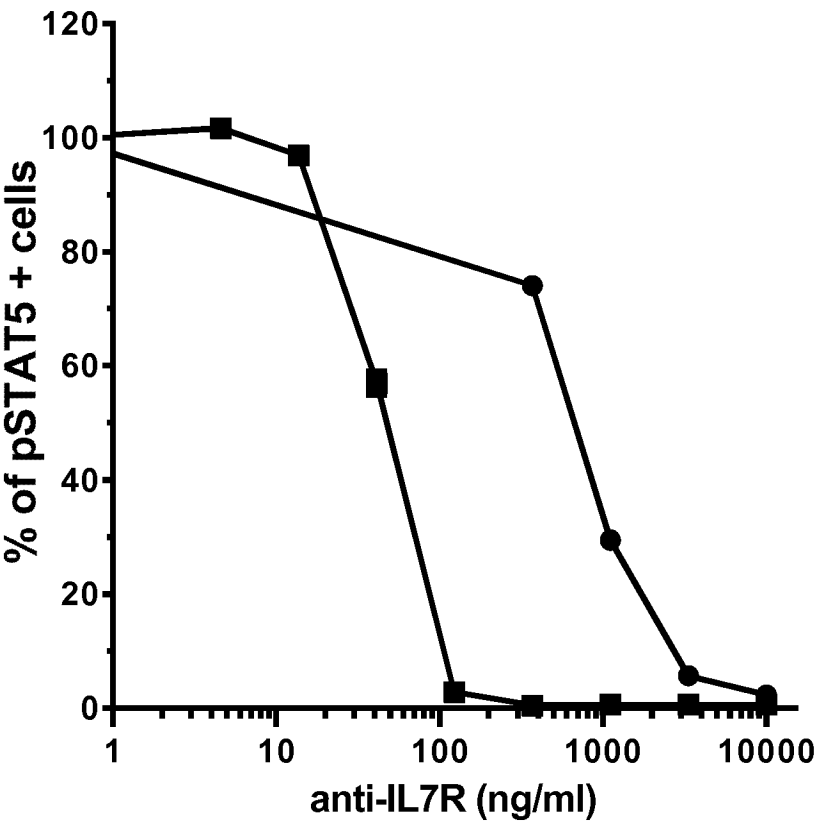


Figure 1



A.



B.

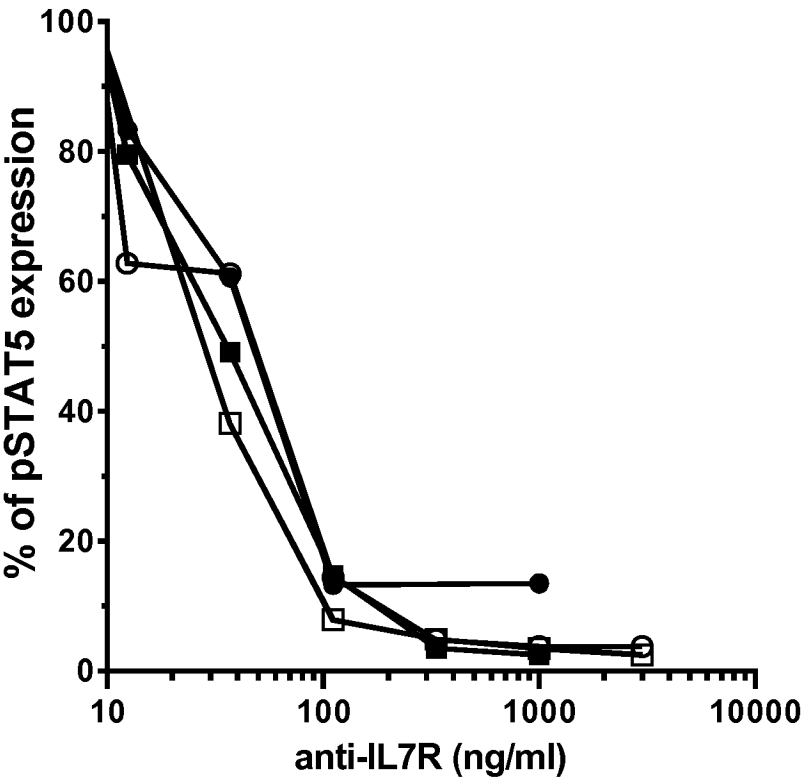


Figure 2

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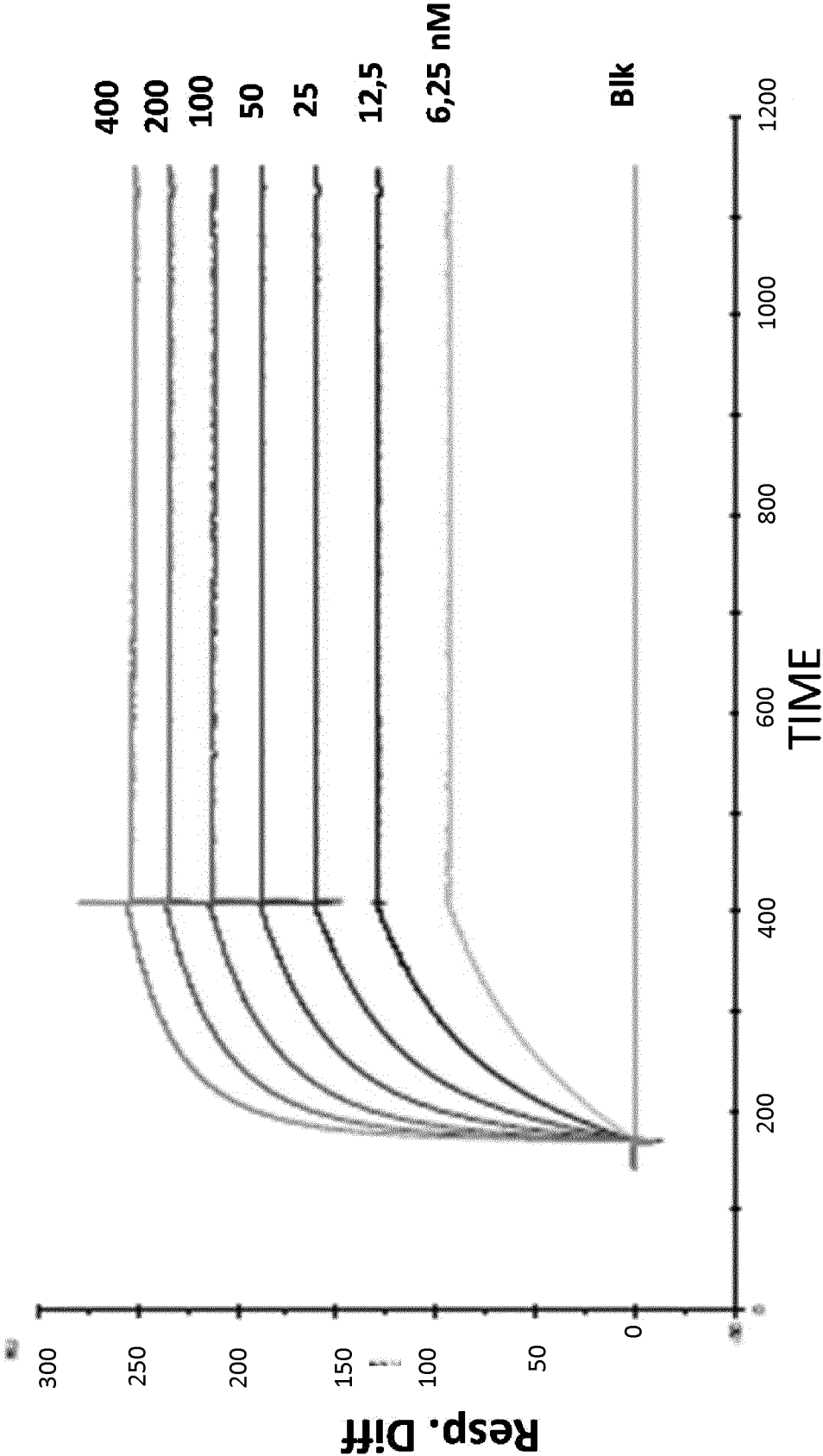


Figure 3

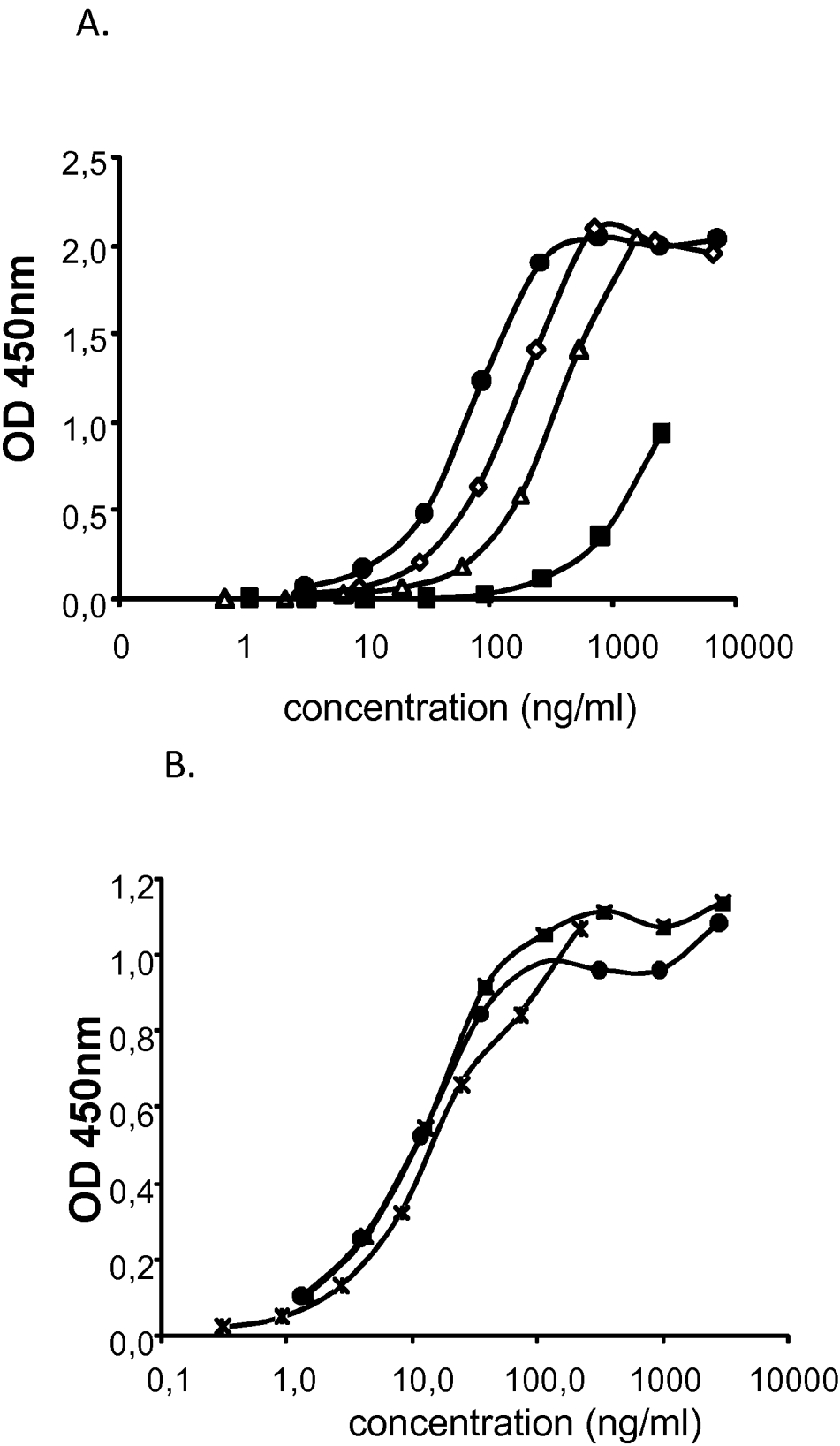
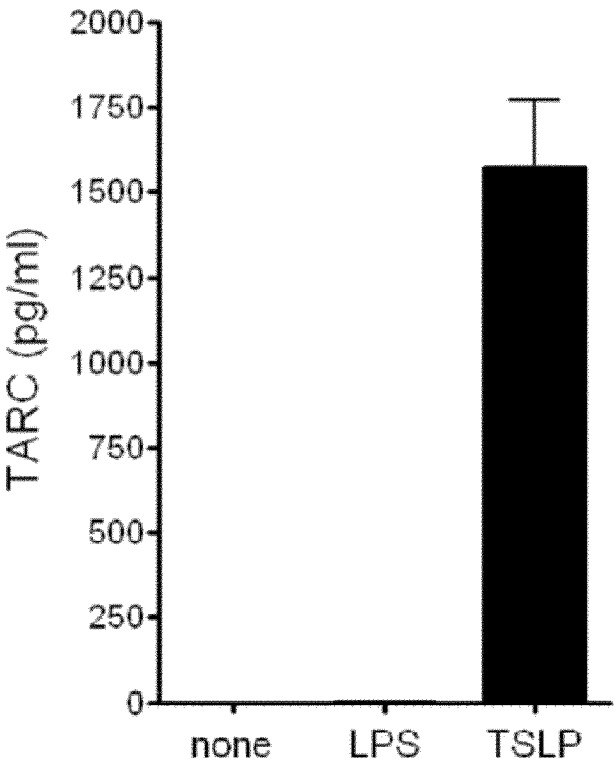


Figure 4

A.



B.

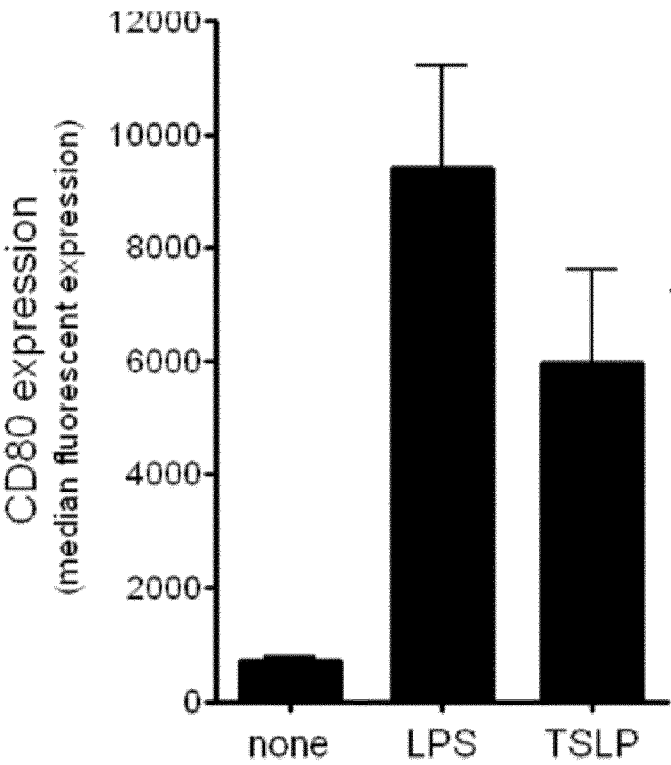


Figure 5

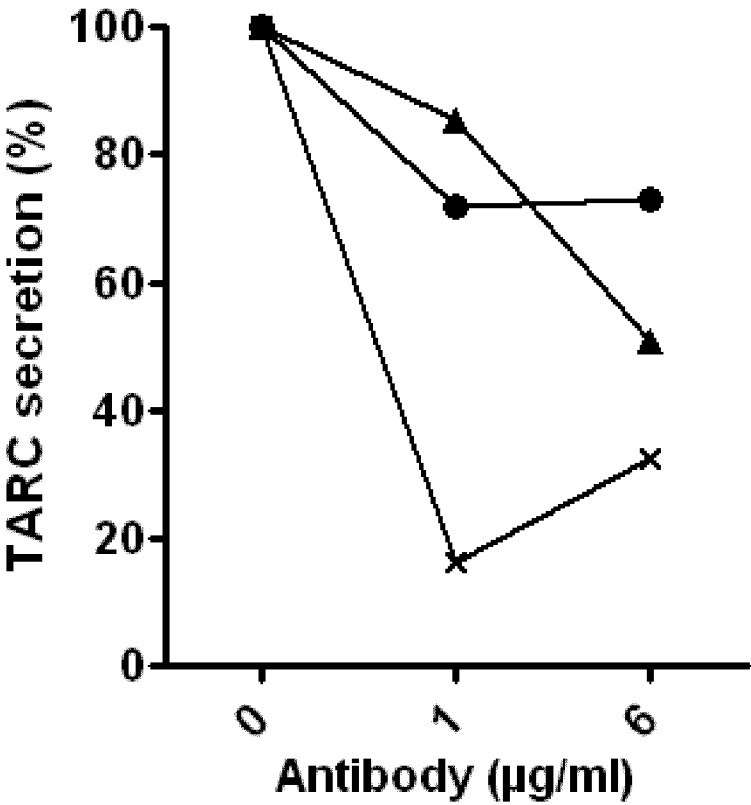


Figure 6

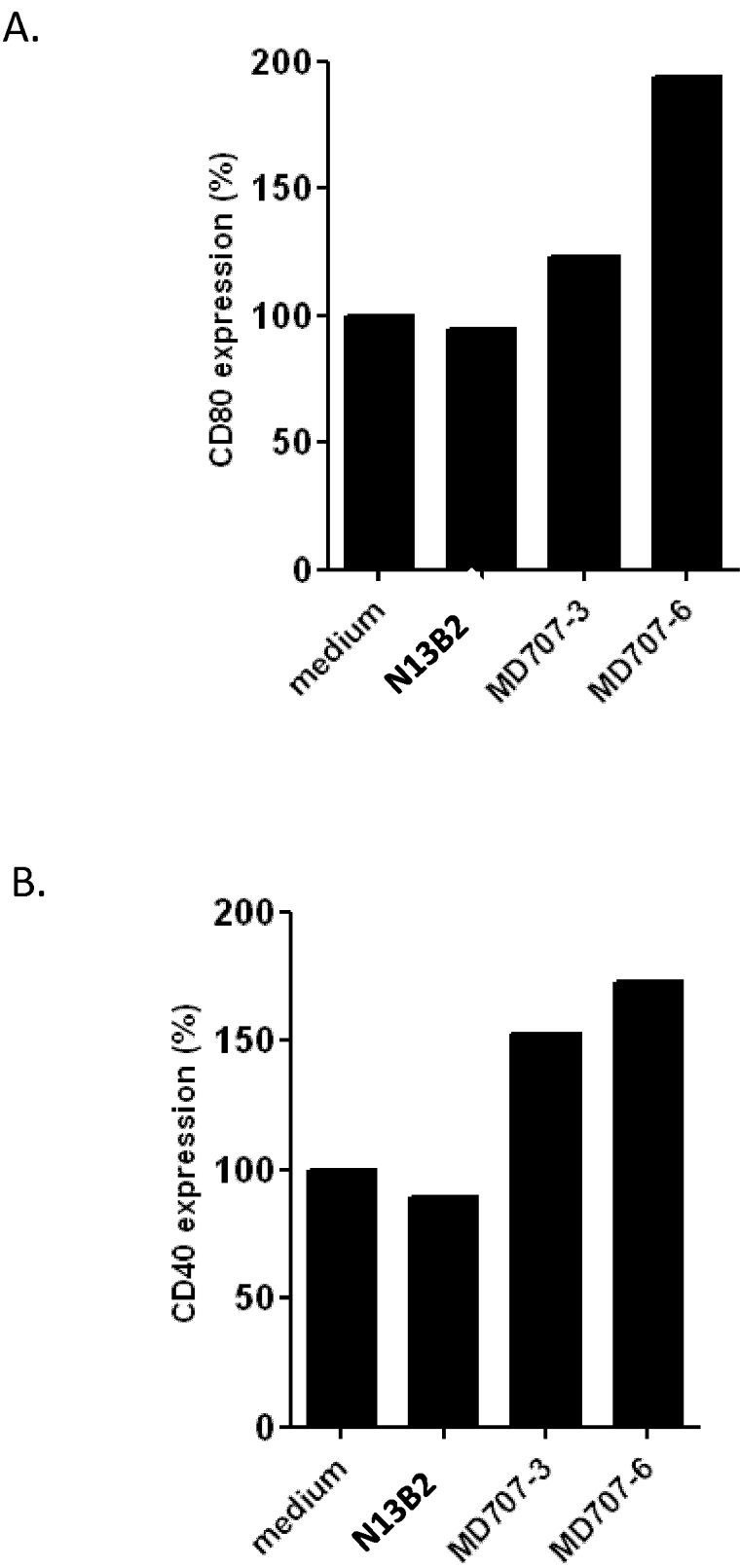


Figure 7

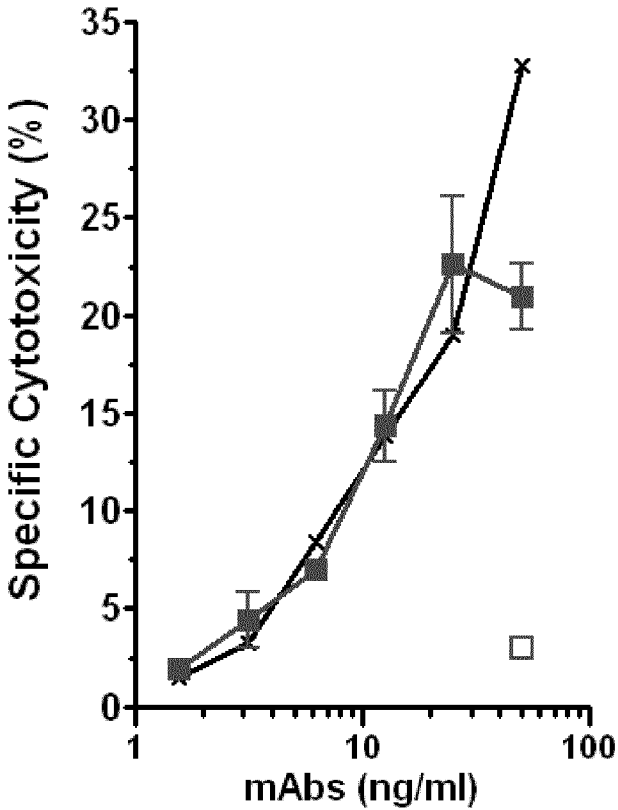


Figure 8

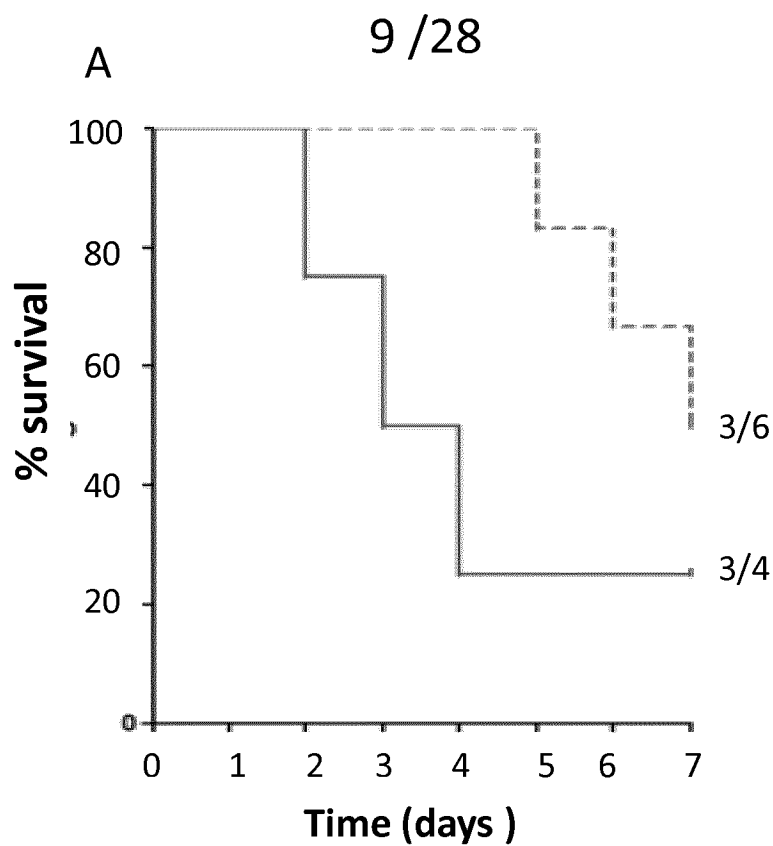
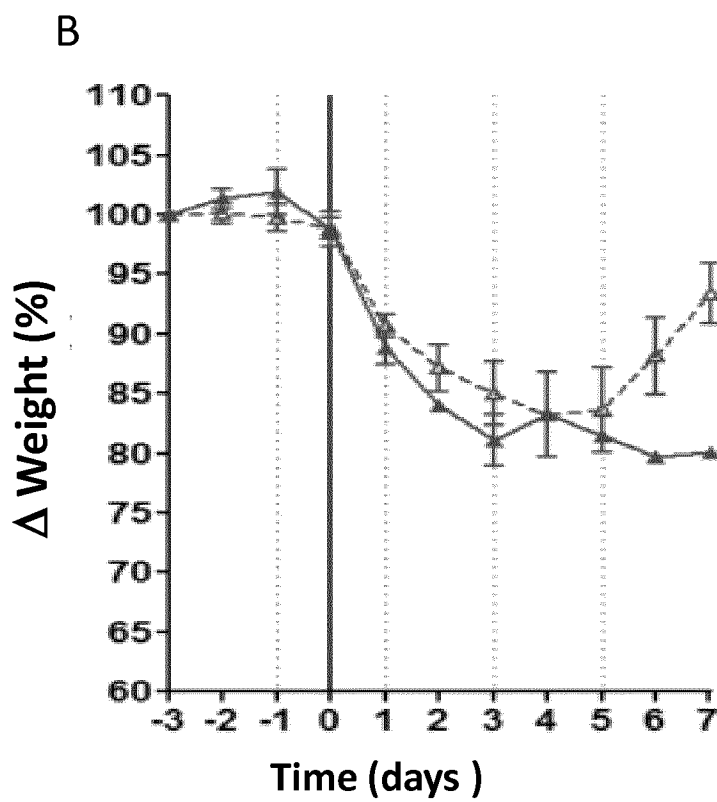


Figure 9

VH-FcG1M (E333A) - DNA 10 / 28

GCGGTGCAGCTGGTGGAGTCTGGGGGAGGCCTAGTGCAGCCTGGAGGGTC
 CCTGAAACTCTCCTGTGCAGTCTCAGGATTCACTCTCAGTGACTATTACATGGC
CTGGGTCCGCCAGGCTCCAAAGAAGGGTCTGGAATGGGTCGCAACCATTAGT
GCCAGTGGGCTCAGAACTTACTATCCAGACTCCGTGAAGGGCCGCTTCACTAT
 CTCCAGAGATGATGCAAAAAGGAGCCTCTTCCTGCAAATGACCAGTCTGAAGT
CTGAGGACACGGCCACTTATTACTGTGCAAGACCGATGTCTGCACACTATGGT
TTTAACTACTTTGATTACTGGGGCCAAGGAGTCATGGTCACAGTCTCCTCAgcta
 gcaccaagggcccatcggtcttccccctggcaccctcctccaagagcacctctgggggcacagcggccctgggc
 tgctgtgtaaggactacttccccgaaccggtgacggtgtcgtggaactcaggcgccctgaccagcggcgtgcac
 acctccccggtgtcctacagtcctcaggactctactccctcagcagcgtggtgaccgtgccctccagcagctggg
 caccagacctacatctgcaacgtgaatcacaagcccagcaacaccaaggtggacaagaaagttgagcccaa
 atcttgtgacaaaactcacacatgccaccgtgccagcacctgaactcctggggggaccgtcagttctctctcc
 ccccaaaaccaaggacaccctcatgatctcccgaccctgaggtcacatgcgtggtggtggacgtgagccac
 gaagaccctgaggtcaagttcaactggtacgtggacggcgtggaggtgcataatgccaagacaaagccgcggg
 aggagcagtacaacagcacgtaccgtgtggtcagcgtcctcaccgtcctgcaccaggactggctgaatggcaag
 gagtacaagtgaaggtctccaacaaagccctcccagcccccatcgcgaaaaccatctccaaagccaaaggg
 cagccccgagaaccacaggtgtacaccctgcccccatcccgaggagatgaccaagaaccaggtcagcctg
 acctgctggtcaaaggcttctatcccagcgacatcgccgtggagtgaggagcaatgggcagccggagaaca
 actacaagaccacgcctcccgtgctggactccgacggctccttcttctctacagcaagctcaccgtggacaaga
 caggtggcagcaggggaacgtcttctcatgctccgtgatgcatgaggctctgcacaaccactacacgcagaaga
 gcctctccctgtctccgggtaaatga

VL-CLKAPPA - DNA

GACATCCAGATGACACAGTCTCCAGCTTCCCTGTCTGCATCTCTGGGAGAAAC
 TGTCACCATCGAATGTCGAACAAGTGAGGACATTTACAATGGTTTAGCATGGTA
 TCAGCAGAAGCCAGGGAAATCTCCTCAGCTCCTGGTCTATAGTGCAAATAGCT
TACATATTGGGGTCCCATCACGGTTCAGTGGCAGTGGATCTGGTACACAGTATT
CTCTCAAGATAAACAGCCTGCAATTTGAAGATGTCGCAAGTTATTTCTGTCAAC
AGTATTACGATTATCCGCTCGCGTTCGGTTCTGGGACCAAGCTGGAGATCAAA
 CGGacggtggctgcaccatctgtcttcatcttcccgccatctgatgagcagttgaaatctggaactgcctctgttgtg
 gcctgctgaataacttctatcccagagaggccaaagtacagtggaaggtggataacgccctccaatcgggtaact
 cccaggagagtgtcacagagcaggacagcaaggacagcacctacagcctcagcagcaccctgacgctgagc
 aaagcagactacgagaaacacaaagtctacgcctgcgaagtcacccatcagggcctgagctcgccggtcaca
 agagcttcaacaggggagagtgttag

VH-FcG1M (E333A) - Protein

AVQLVESGGGLVQPGGSLKLSCAVSGFTLSDYIMAWVRQAPKKGLEWVATISASGLRTYYPD^{SVKGRF}
 TISRDDAKRSLFLQMTSLKSEDTATYYCARPMSAHYGFNYFDYWGQGVMTVSSastkgpsvfplapssks
 sggtaalglvkdyppepvtvswngaltsghvhtfpavlqssglyslssvvtvpssslgtqtyicnvnhkpsntkvdkkvepkscd
 kthtppcpapellggpsvflfppkpkdtlmisrtpetvcvvvdvshedpevkfnwyvdgvevhnaktkpreeqynstyrvv
 svltvlhqdwlngkeykckvsnkalpapiaktiskakgqprepvytlppsreemtknqvsltlvkgfypsdiavewesngq
 pennykttppvltdsdgsfflyskltvdksrwqqgnvfscsvmhealhnhytqkslspsgk*

VL-CLKAPPA - Protein

DIQMTQSPASLSASLG^{ETVTIE}CR^{TSE}DIYNG^{LAWY}QQKPGKSPQLLVYSANSLHIGVPSRFSGSGSGTQ
 YSLKINS^{LQFED}VASYFCQQYYDYPLAFSGGTKLEIKR^{tvaapsvfifppsdeqlksgtasvvc}llnnfy^{preakvq}w
 kvdnalqsgnsqesvteqdsdstyslsstltlskadyekhkvyacevthqglsspvtksfnrgec*

Figure 10

VH-FCG4M (S228P) - DNA 11 / 28

GCGGTGCAGCTGGTGGAGTCTGGGGGAGGCCTAGTGCAGCCTGGAGGGT
 CCCTGAAACTCTCCTGTGCAGTCTCAGGATTCACTCTCAGTGACTATTACAT
GGCCTGGGTCCGCCAGGCTCCAAAGAAGGGTCTGGAATGGGTTCGCAACC
ATTAGTGCCAGTGGGCTCAGAACTTACTATCCAGACTCCGTGAAGGGCCGC
 TTCACTATCTCCAGAGATGATGCAAAAAGGAGCCTCTTCCTGCAAATGACCA
 GTCTGAAGTCTGAGGACACGGCCACTTATTACTGTGCAAGACCGATGTCTG
CACACTATGGTTTTAACTACTTTGATTACTGGGGCCAAGGAGTCATGGTCAC
 AGTCTCCTCAgctagaccaagggcccatcggtcttccccctggcgccctgctccaggagcacctccg
 agagcacagccgccctgggctgctggtcaaggactactccccgaaccggtgacggtgctgtggaactcag
 gcgcctgaccagcggtgcacacctcccggtgtcctacagtcctcaggactctactccctcagcagcgt
 ggtgaccgtgccctccagcagcttgggcacgaagacctacacctgcaacgtagatcacaagccagcaac
 accaaggtggacaagagagttgagtccaaatatggtcccccattgccaccatgccagcacctgagttcctg
 gggggaccatcagttcttctgttccccccaaaacccaaggacactctcatgatctcccggaacctgaggtca
 cgtgcgtggtggtggacgtgagccaggaagacccccagggtccagttcaactggtacgtggtgagcgtgga
 gtgcataatgccaagacaaagccgcgggaggagcagttcaacagcacgtaccgtgtggtcagcgtcctcac
 cgtcctgcaccaggactggctgaacggcaaggagtacaagtgaagggtctccaacaaaggcctcccgctct
 ccatcgagaaaaccatctccaaagccaaagggcagccccgagagccacaggtgtacacctgcccccatc
 ccaggaggagatgaccaagaaccagggtcagcctgacctgctggtcaaaggcttctaccccagcgacatcg
 ccgtggagtgggagagcaatgggcagccggagaaactacaagaccacgcctcccgctgctggactccg
 acggctccttcttctctacagcaggctaaccgtggacaagagcaggtggcaggagggggaatgtcttctcatg
 ctccgtgatgcatgaggctctgcacaaccactacacacagaagagcctctccctgtctccgggtaaatga

VL-CLKAPPA - DNA

GACATCCAGATGACACAGTCTCCAGCTTCCCTGTCTGCATCTCTGGGAGAA
 ACTGTCACCATCGAATGTCTGAACAAGTGAGGACATTTACAATGGTTTAGCAT
 GGTATCAGCAGAAGCCAGGGAAATCTCCTCAGCTCCTGGTCTATAGTGCAA
ATAGCTTACATATTGGGGTCCCATCACGGTTCAGTGGCAGTGGATCTGGTAC
 ACAGTATTCTCTCAAGATAAACAGCCTGCAATTTGAAGATGTCGCAAGTTATT
TCTGTCAACAGTATTACGATTATCCGCTCGCGTTCGGTTCCTGGGACCAAGCT
 GGAGATCAAACGGacggtggctgcaccatctgtcttcatcttcccgccatctgatgagcagttgaaatct
 ggaactgcctctgttgtgtgctgctgaataacttctatcccagagaggccaaagtacagtggaagggtgataa
 cgccctccaatcgggtaactcccaggagagtgctcacagagcaggacagcaaggacagcacctacagcctc
 agcagcacctgacgtgagcaaagcagactacgagaaacacaaagtctacgcctgcgaagtcacccatc
 agggcctgagctcgcccgtcacaaagagcttcaacaggggagagtgtag

VH-FCG4M (S228P) - Protein

AVQLVESGGGLVQPGGSLKLSCAVSGFTLSDYYMAWVRQAPKKGLEWVATISASGLRITYYPDSVKG
 RFTISRDDAKRSLFLQMTSLKSEDATYYCARPMSAHYGFNYFDYWGQGMVTVSSastkgpsvfpla
 pcsrstsestaalgclvkdyfpepvtvswngaltsgvhtfpavllqssglyslssvvtvpssslgtktytcnvdhkpsntkvdk
 rveskygppcppepflggpsvflfpkpkdltmisrtpcvvdvsqedpevqfnwyvdgvevhnaktkpree
 qfnstyrsvsltlvhlqdwlngkeyckvsnkglpssiectiskakgqprepvytlppsqeemtknqvsltlvkgfyps
 diavewesngqpennyktpvldsdgsfflysrltvdksrwqegnvfscsvmhealhnhytqkslsispk*

VL-CLKAPPA - Protein

DIQMTQSPASLSASLGETVTIECRTSEDIYNGLAWYQQKPGKSPQLLVYSANSL
HIGVPSRFSGSGSGTQYSLKINSIQFEDVASYFCQQYYDYPLAFSGGTKLEIKR
 tvaapsvfifppsdeqlksgtasvvcllnnfybreakvqwkvdnalqsgnsqesvteqdsdstyslsstltlska
 dyekhkvyacevthqglsspvtksfnrgec*

Figure 11

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Fc sequences**Human IgG1** (Uniprot P01857):

ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPA
AVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDKTHTC
PPCPAPPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYV
DGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPI
EKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQ
PENNYKTTTPVLDSGDSFFLYSKLTVDKSRWQQGNVFCFSVMHEALHNHYTQ
KSLSLSPGK

Human IgG2 (Uniprot P01859):

ASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPA
VLQSSGLYSLSSVVTVPSSNFGTQTYTCNVDHKPSNTKVDKTVKCCVECPPC
PAPPVAGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVQFNWYVDGVE
VHNAKTKPREEQFNSTFRVVSVLTVVHQDWLNGKEYKCKVSNKGLPAPIEKTIS
KTKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDISVEWESNGQPENN
YKTTTPMLDSGDSFFLYSKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLS
LSPGK

Human IgG4 (Uniprot P01861):

ASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPA
VLQSSGLYSLSSVVTVPSSSLGTQTYTCNVDHKPSNTKVDKRVESKYGPSPSCP
APEFLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSDQEDPEVQFNWYVDGVE
VHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIS
KAKGQPREPQVYTLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPEN
NYKTTTPVLDSGDSFFLYSRLTVDKSRWQEGNVFCFSVMHEALHNHYTQKSLS
LSLGK

Rat IgG1 (Uniprot P20759) used in N13B2

AETTAPSVYPLAPGTALKSNSMVTLGCLVKGYFPEPVTVTWNSGALSSGVHTFPA
AVLQSGLYTLTSSVTVPSSTWPSQTVTCNVAHPASSTKVDKKIVPRNCGGDCKP
CICTGSEVSSVFIFPPKPKDVLITLTPKVTCTVVDISQDDPEVHFSWFVDDVEV
HTAQTRPPEEQFNSTFRSVSELPILHQDWLNGRTRCKVTSAAFPSPIEKTISKP
EGRTQVPHVYTMSPKTEEMTQNEVSITCMVKGFPDIYVEWQMNGQPQE
NYKNTPTMDTDGSYFLYSLNVKKEKWQQGNTFTCSVLHEGLHNHHTKSL
SHSPGK

Figure 12

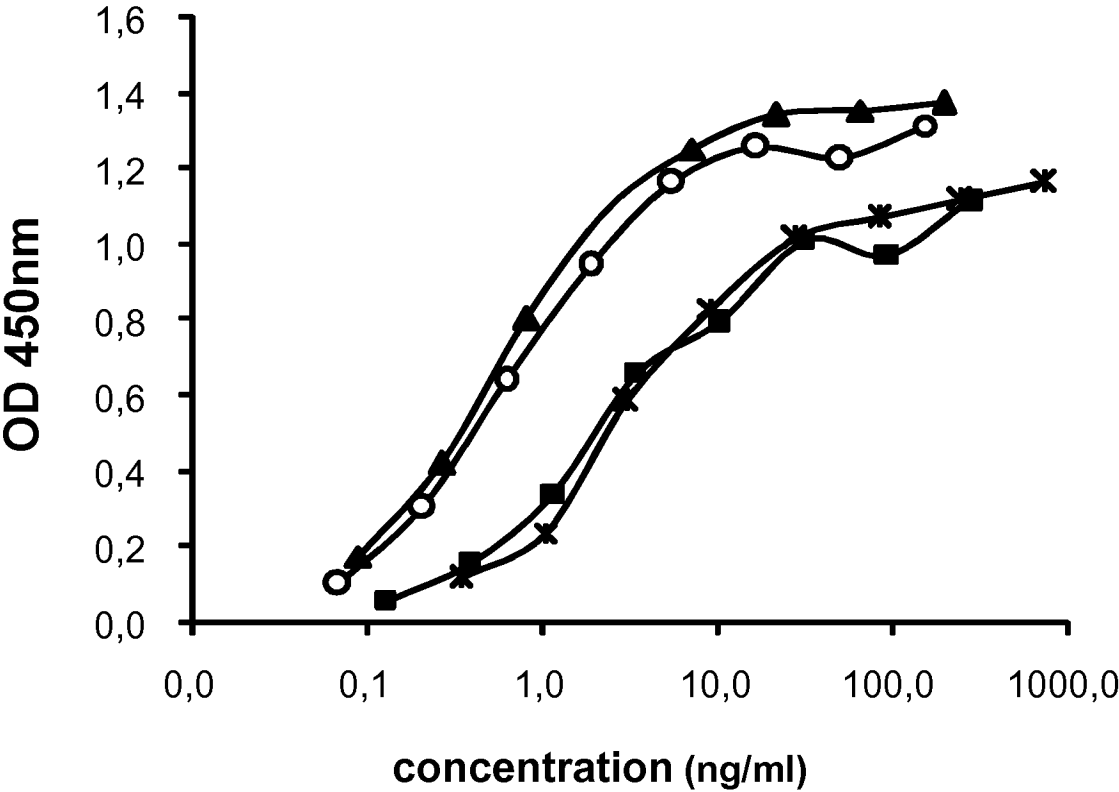


Figure 13

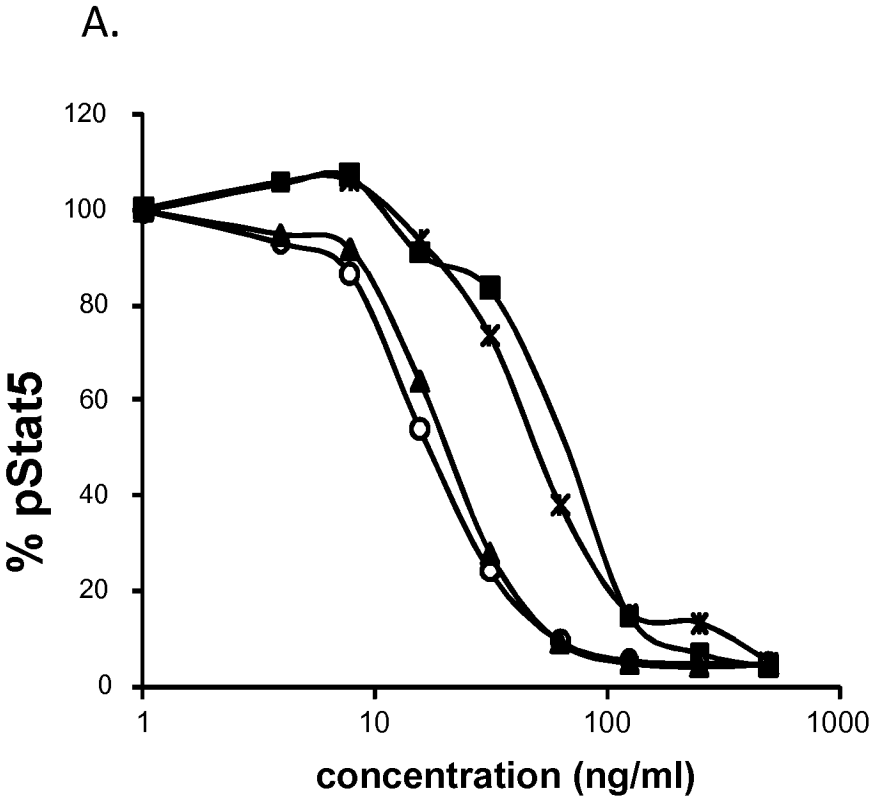
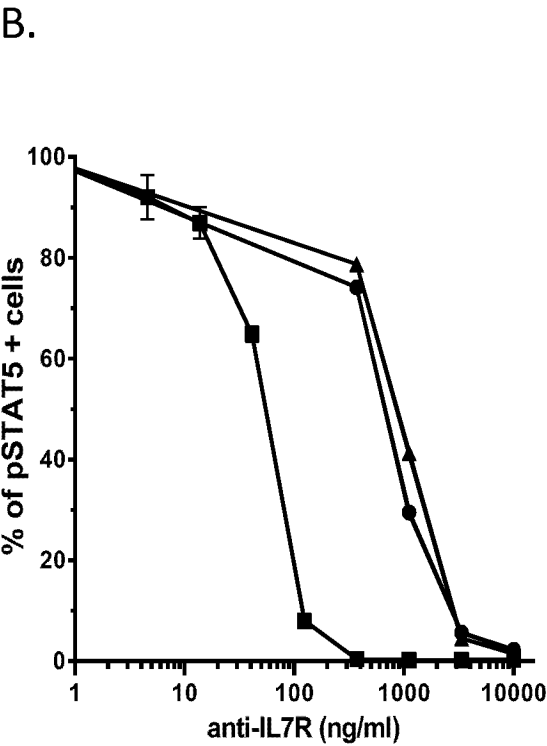


Figure 14

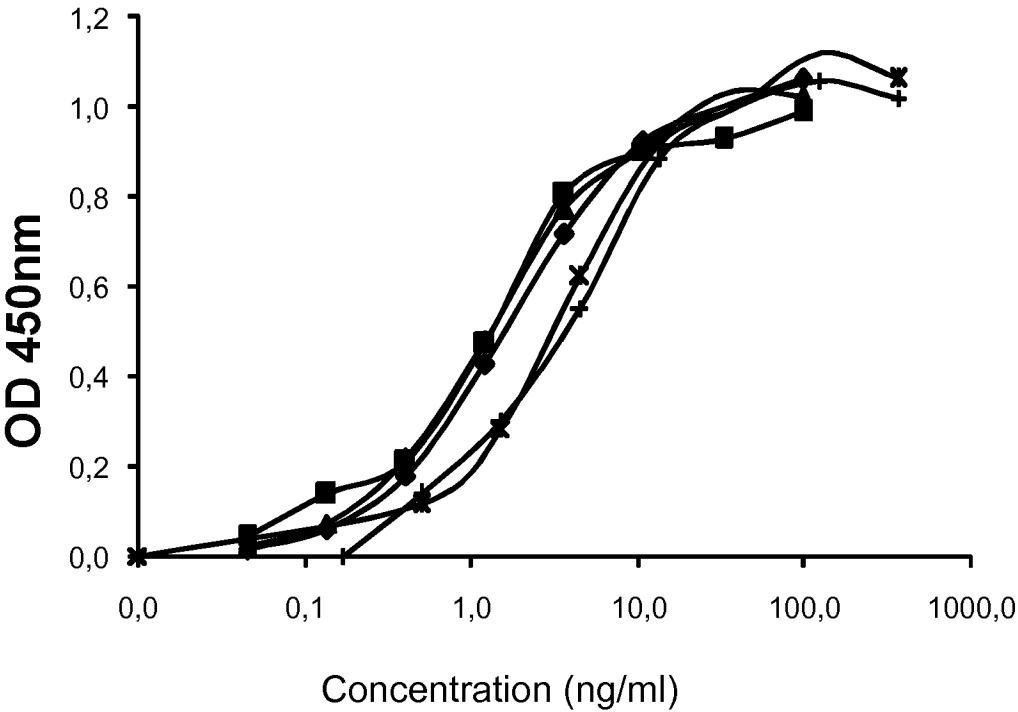
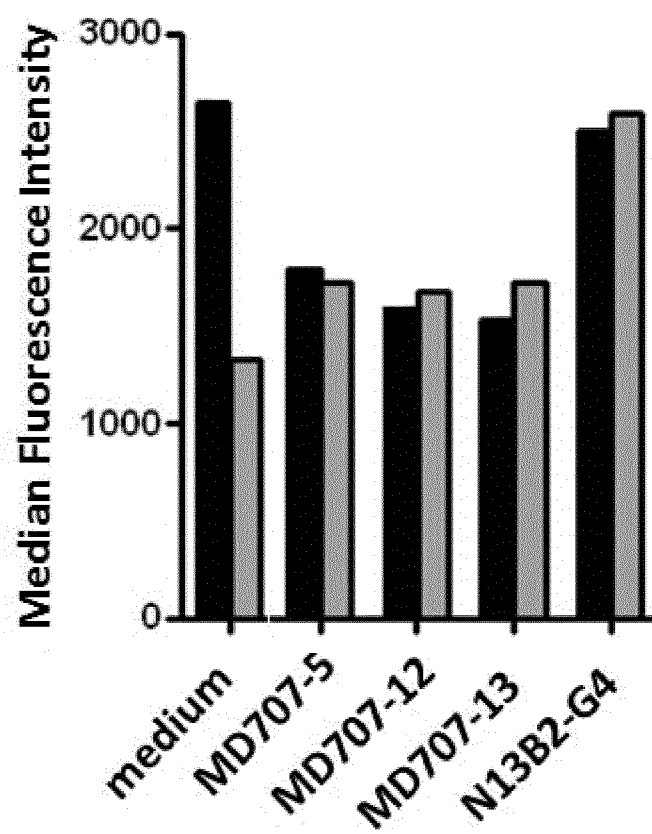


Figure 15

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A.



B.

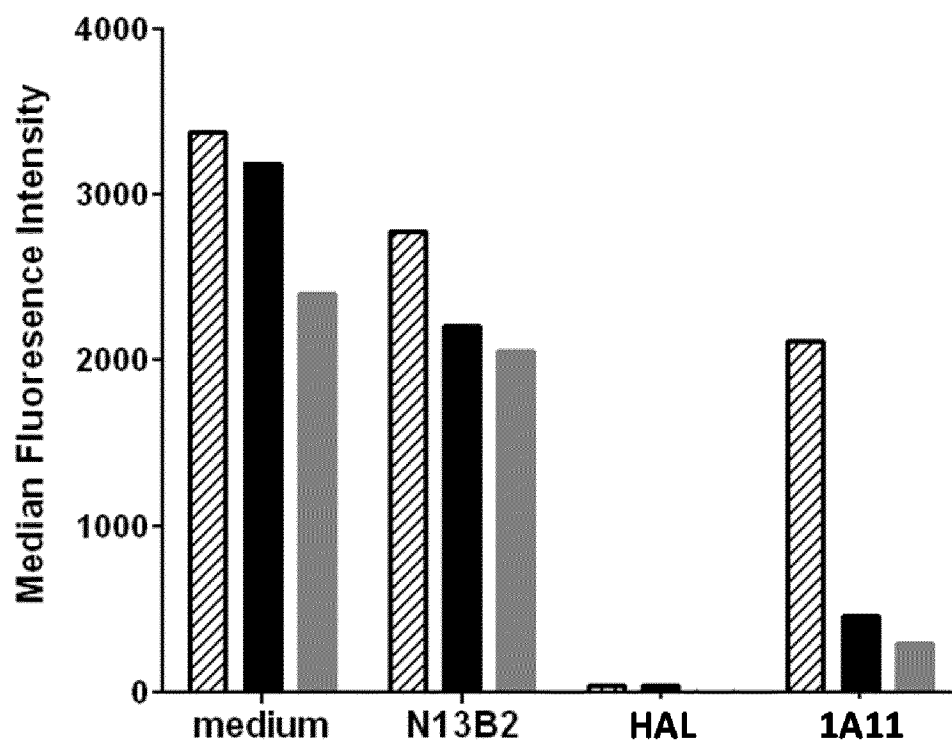
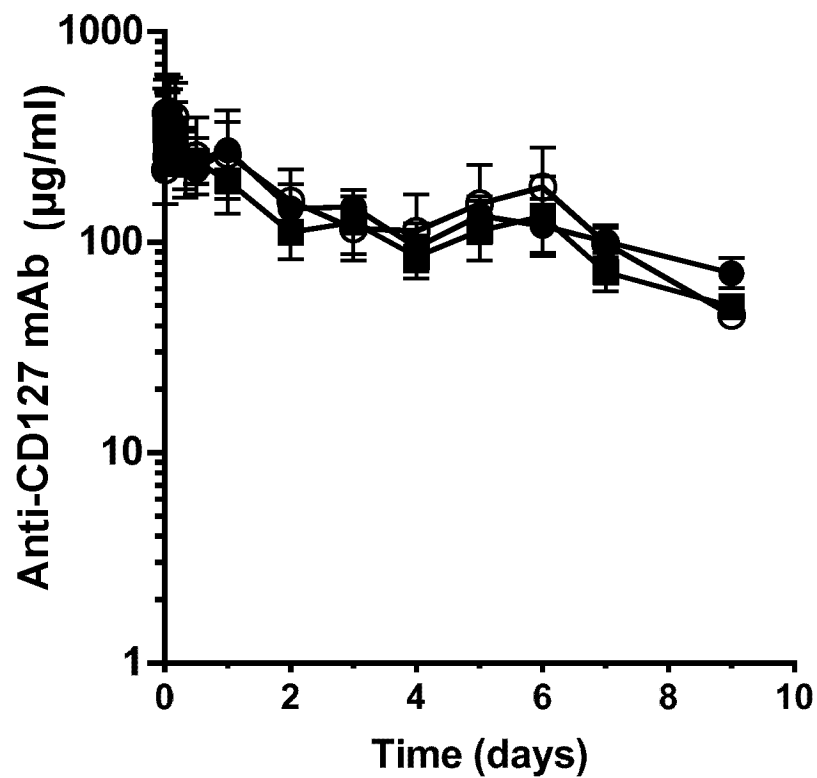


FIGURE 16

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A.



B.

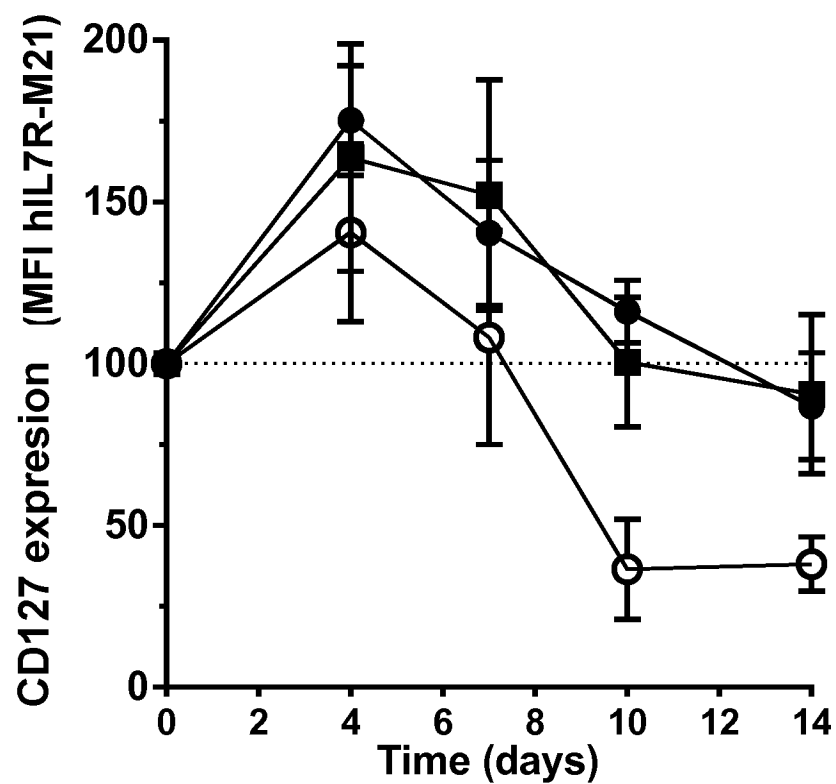
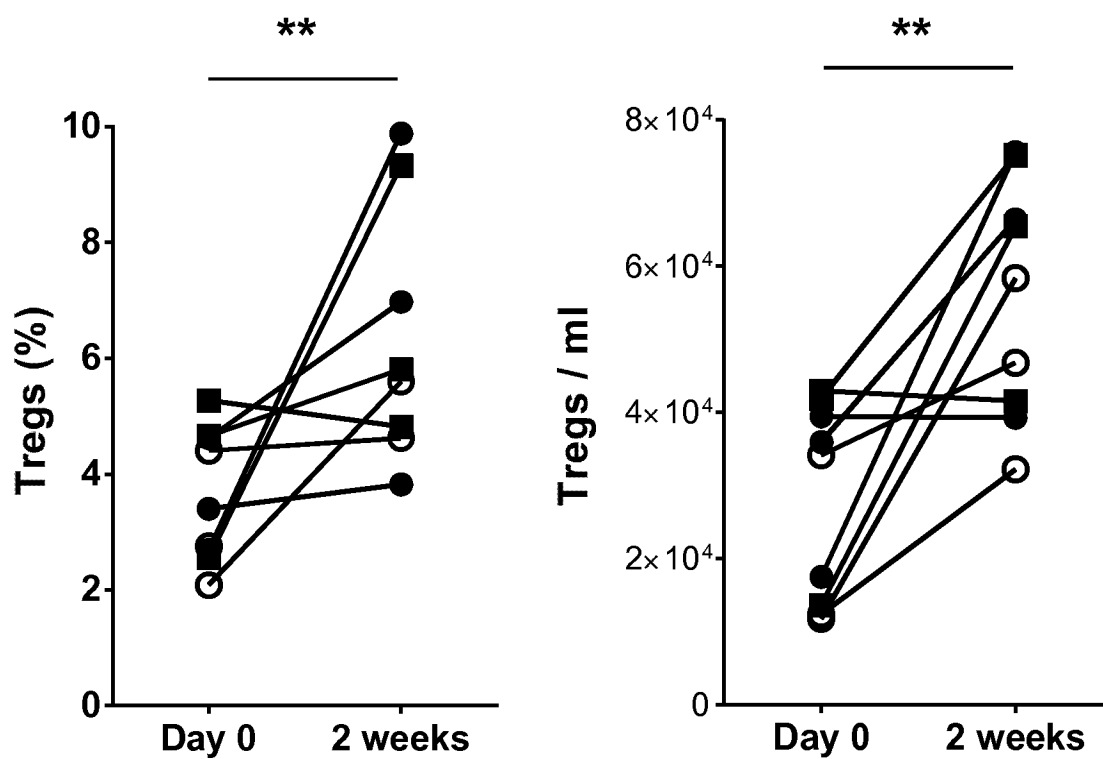


Figure 17

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Peripheral blood

Lymph nodes

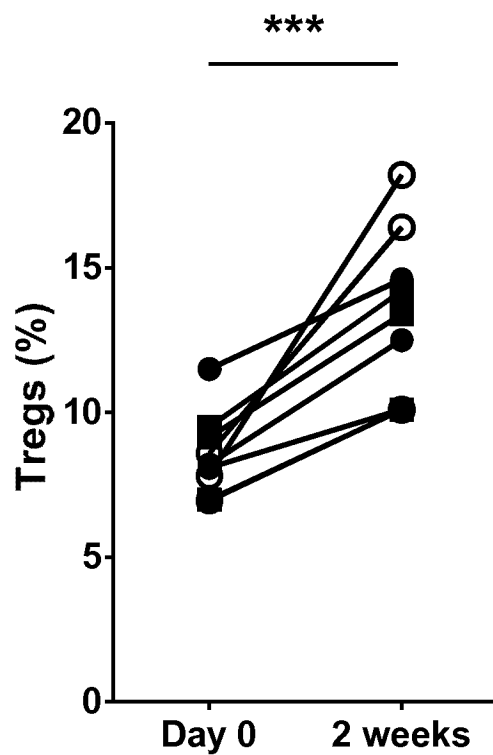


Figure 18

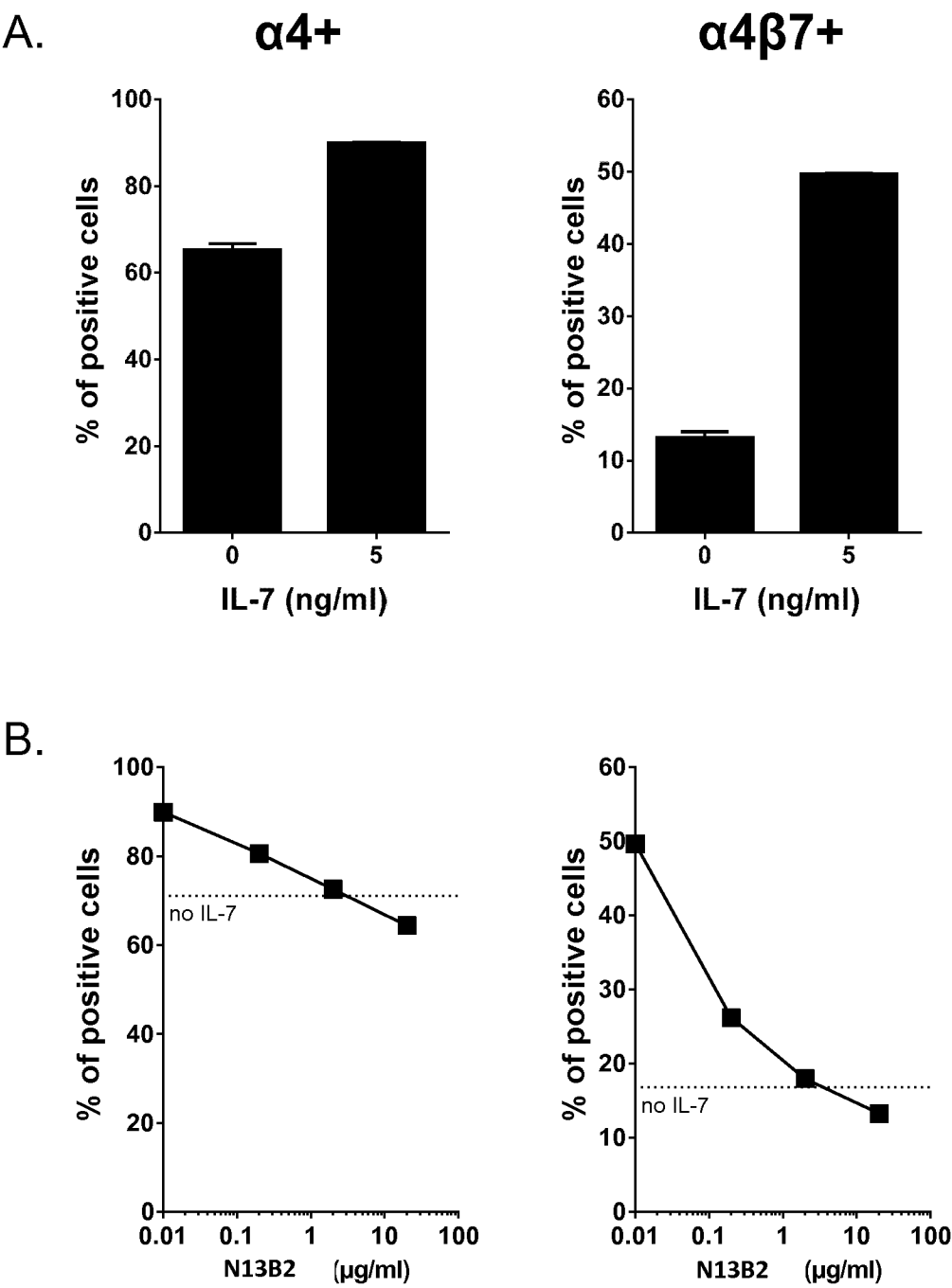


Figure 19

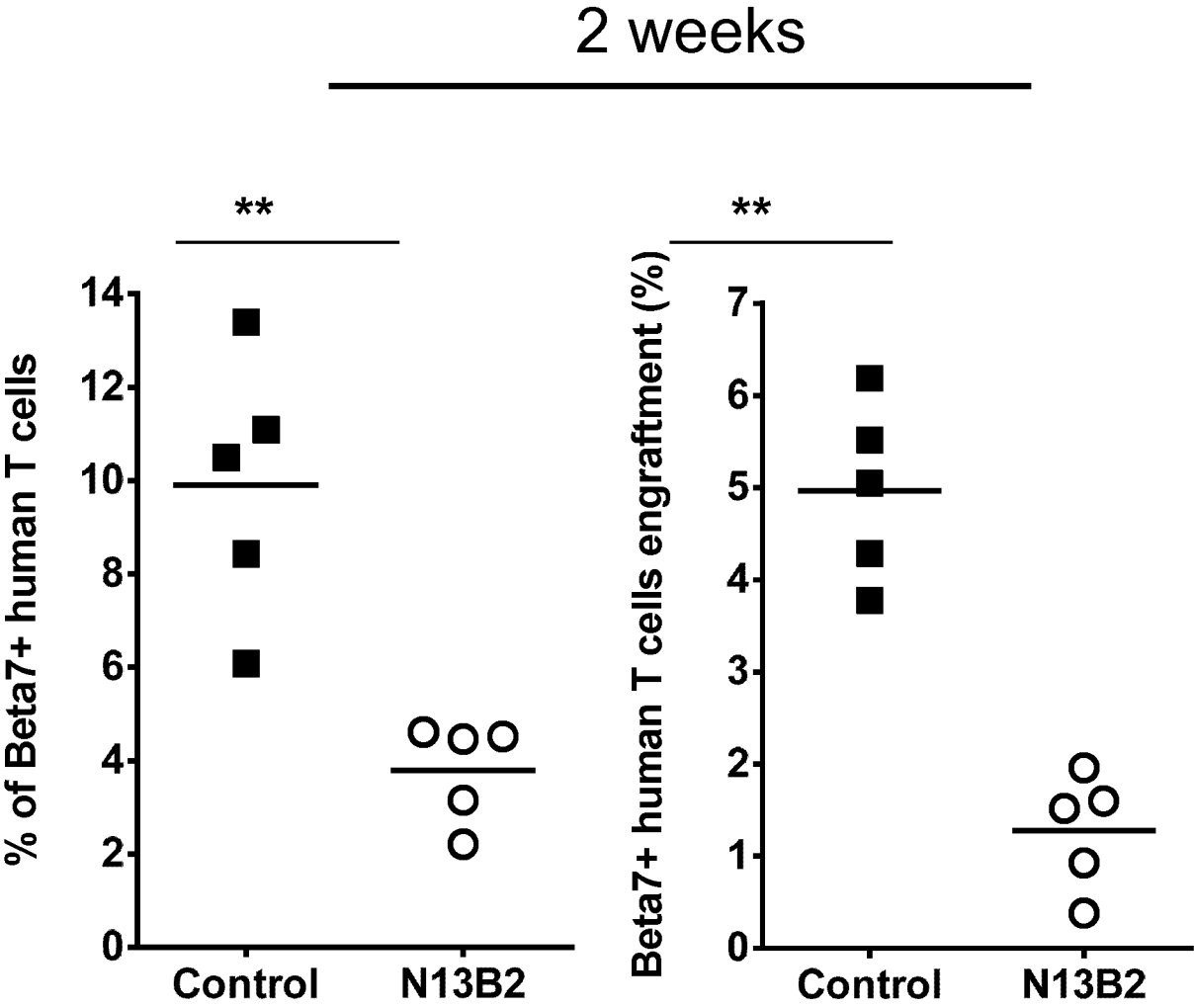


Figure 20

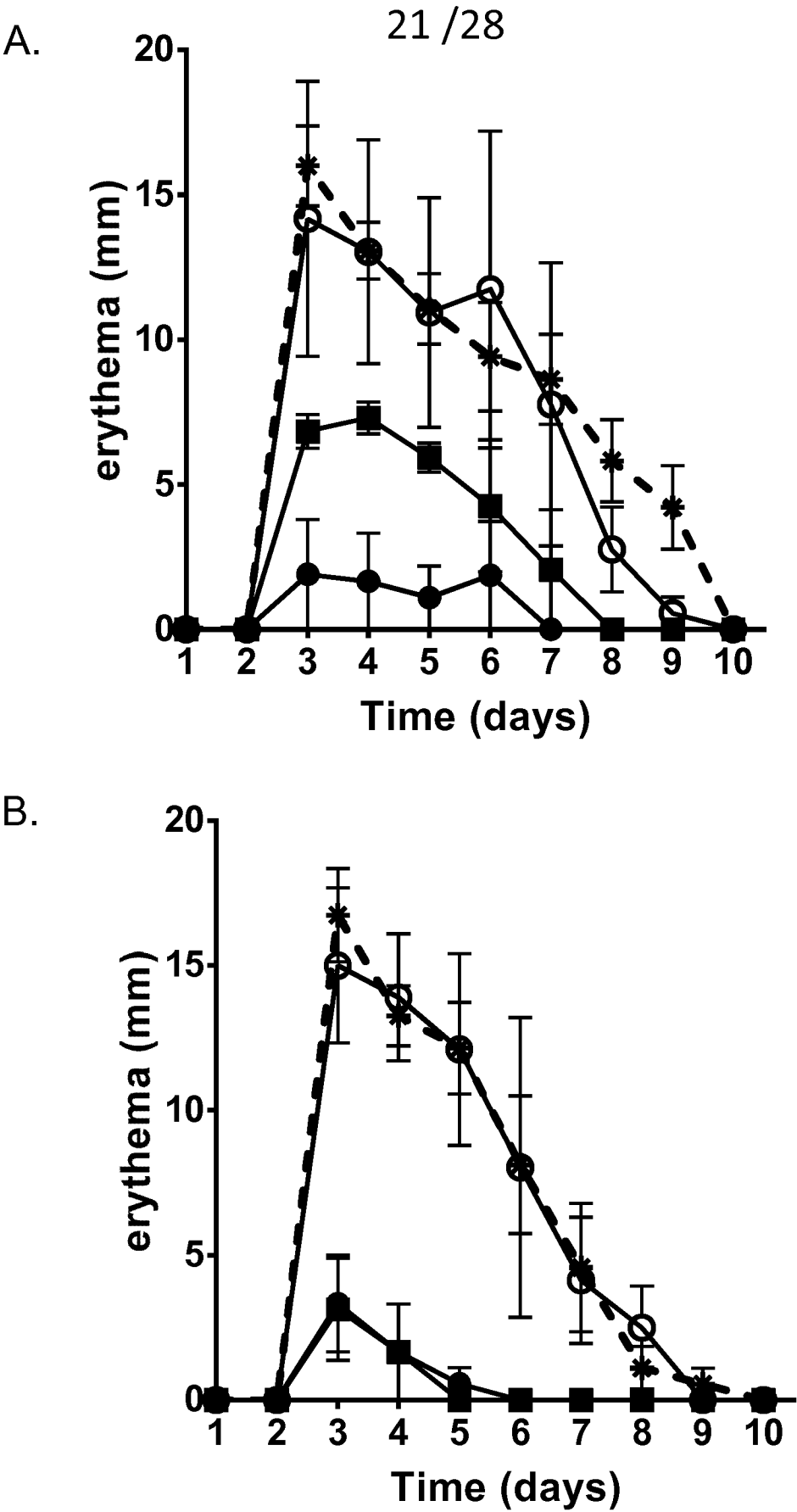


Figure 21

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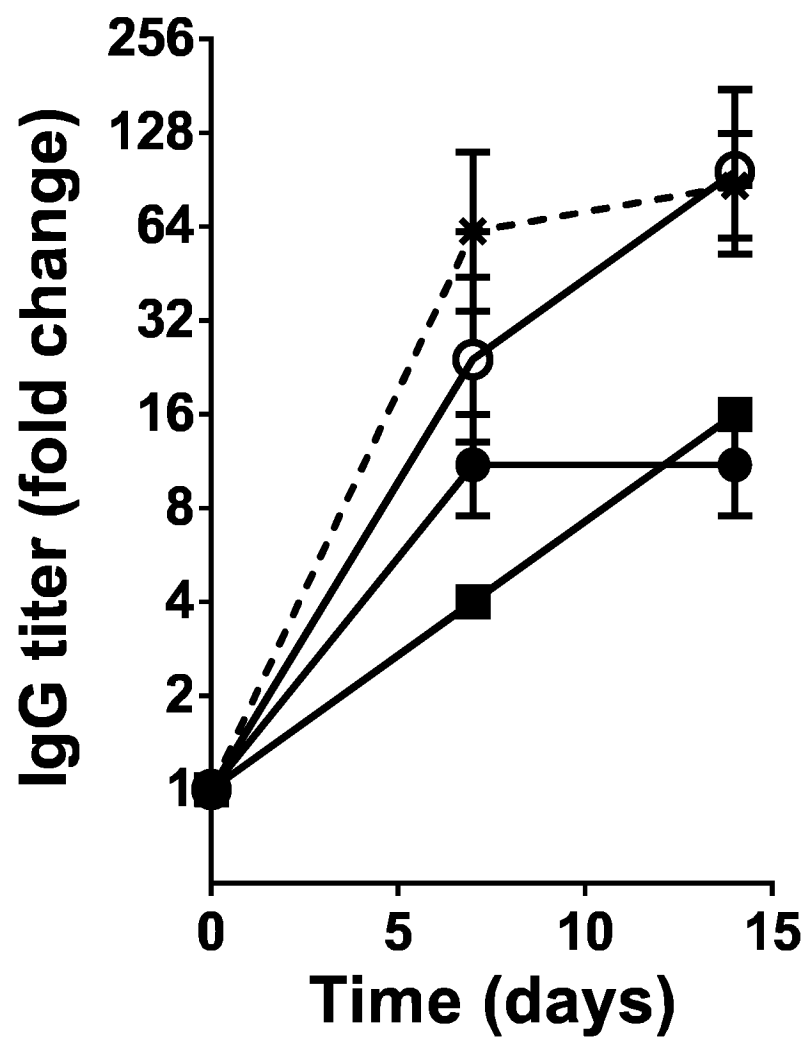


Figure 22

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QVQLVESGGGLVKPGGSLRLSCAVSGFTLSDY~~Y~~MAWIRQAPG
KGLEWVSTISASGLRTYYPD~~S~~VKGRFTISRDN~~A~~AKNSLYLQMNS
LRAEDTAVYYCARPLSAHYGFNYFDYW~~G~~QGTLTVSSASTKGP
SVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGV
HTFPAVLQSSGLYSLSSVVTVPSSSLGTKTYTCNVDHKPSNTKV
DKRVESKYGPPCPPCPAPEFLGGPSVFLFPPKPKDTLMISRTPE
VTCVVVDVSQEDPEVQFNWYVDGVEVHNAKTKPREEQFNST
YRVVSVLTVHLHQDWLNGKEYKCKVSNKGLPSSIEKTISKAKGQ
PREPQVYTLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNG
QPENNYKTTTPVLDSDGSFFLYSRLTVDKSRWQEGNVFSCSV
MHEALHNHYTQKSLSLSPGK*

Figure 23

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EIVMTQSPATLSVSPGERATLSCRTSEDIYQGLAWYQQKPGQA
PRLLIYSANTLHIGIPARFSGSGSGTEFTLTISSLQSEDFAVYYCQ
QYYDYPLAFGGGTKVEIKTVAAPSVFIFPPSDEQLKSGTASVVC
LLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLS
STLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC*

Figure 24

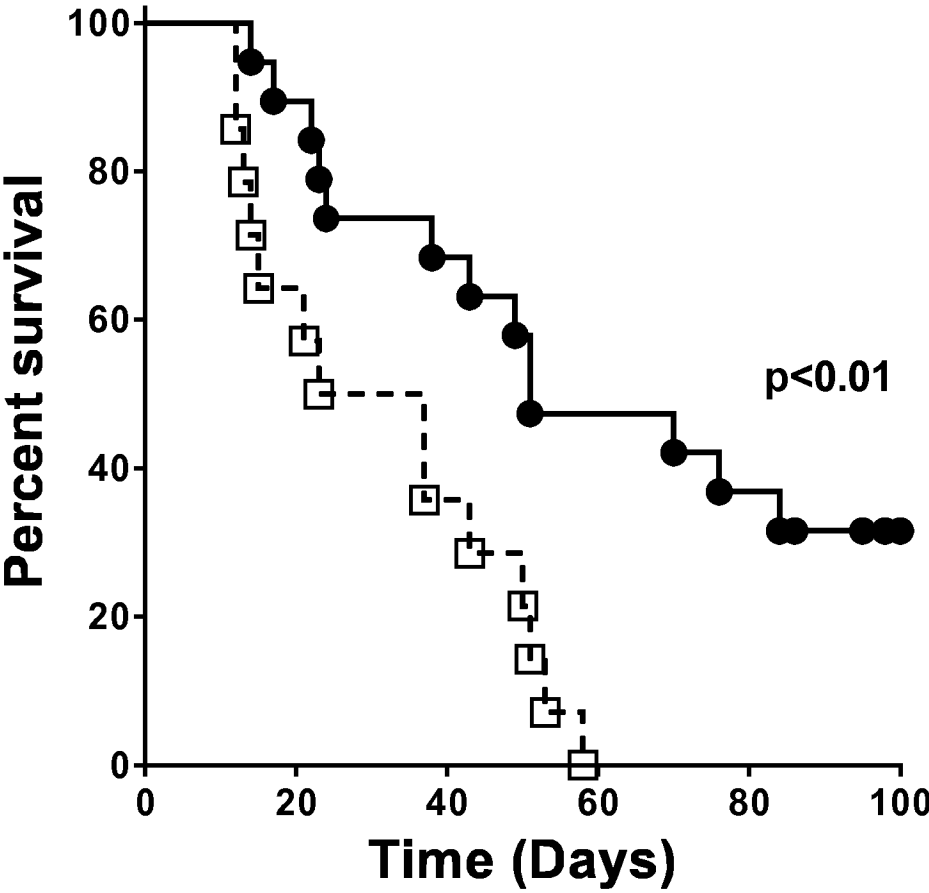


Figure 25

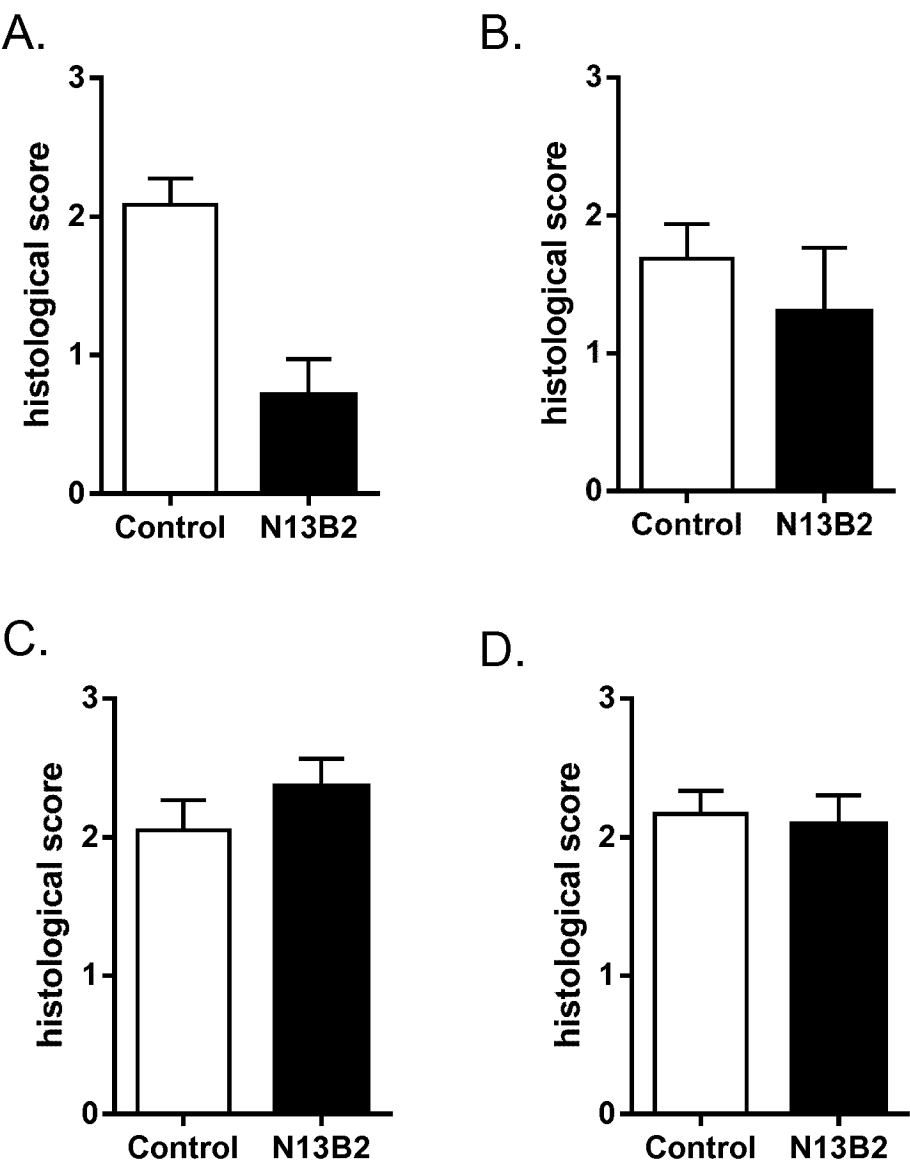


Figure 26

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~~MTILGTTFCMVFSLLQVVSGESGYAQNGDLEDAELDDYSFS~~
CYSQLEVNGSQHSLTCAFEDPDVNTTNLEFEICGALVEVKC
LNFRKLQEIIY**FIETKKF**LLIGKSNICVKVGEKSLTCKKIDL
TTIVKPEAPF**DLSVIY**REGANDFVVTFNTSHLQKKYVKVLM
HDVAYRQEKDENKWTHVNLSSTKLTLQRLQPAAMYEIKV
RSIPDHY**FKGF**WSEWSPSYFRTPEINNSSGEMDPILLTIS
ILSFFSVALLVILACVLWKKRIKPIVWPSLPDHKKTLEHLC
KKPRKNLNVSFNPESFLDCQIHRVDDIQARDEVEGFLQDTF
PQQLEESEKQRLGGDVQSPNCPSADVITPESFGRDSSLTC
LAGNVSACDAPILSSSRSLDCRESGKNGPHVYQDLLLSLGT
TNSTLPPPFSLQSGILTLPVAQGQPILTSLGSNQEEAYVT
MSSFYQNQ

Figure 27

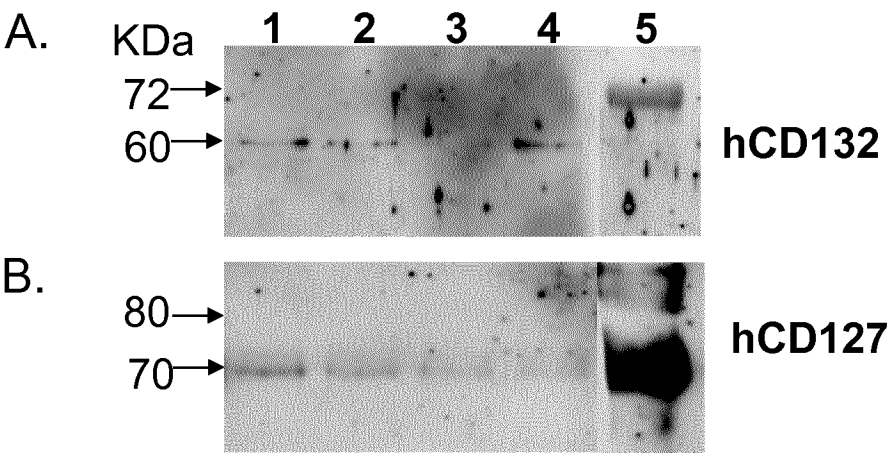


Figure 28