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FBG domain

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Figure 1

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Figure 2

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Figure 2 (con't)

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Figure 2 (con't)

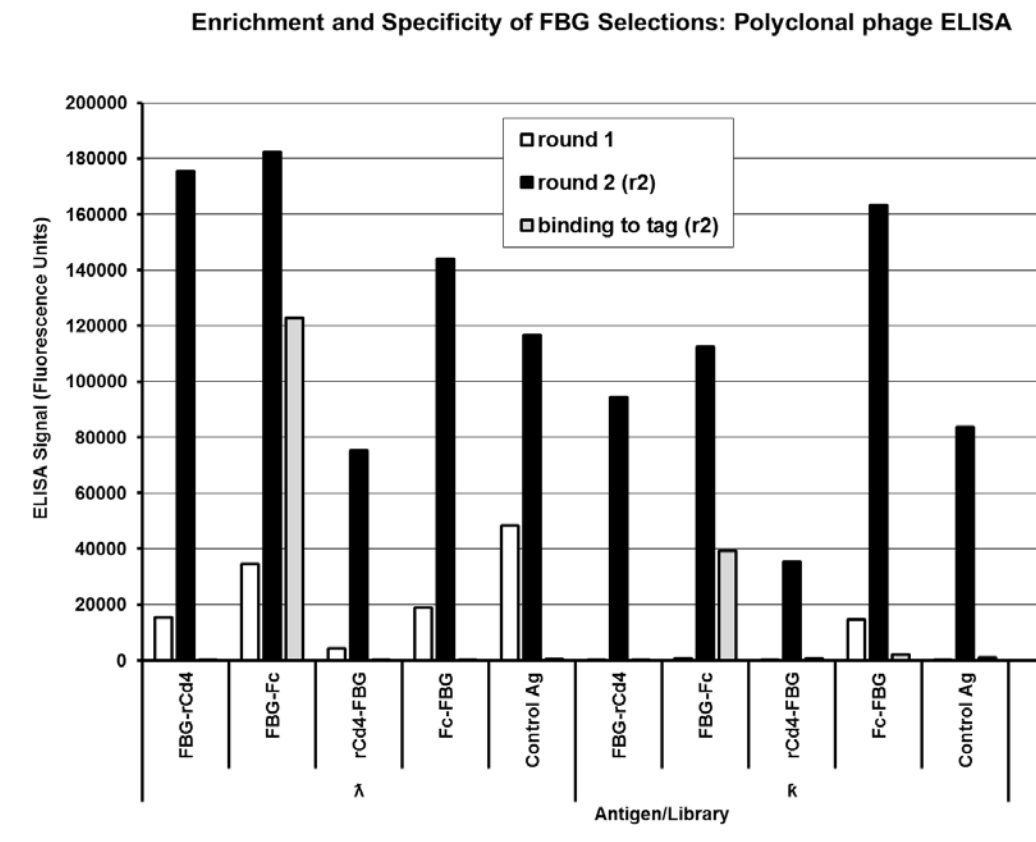


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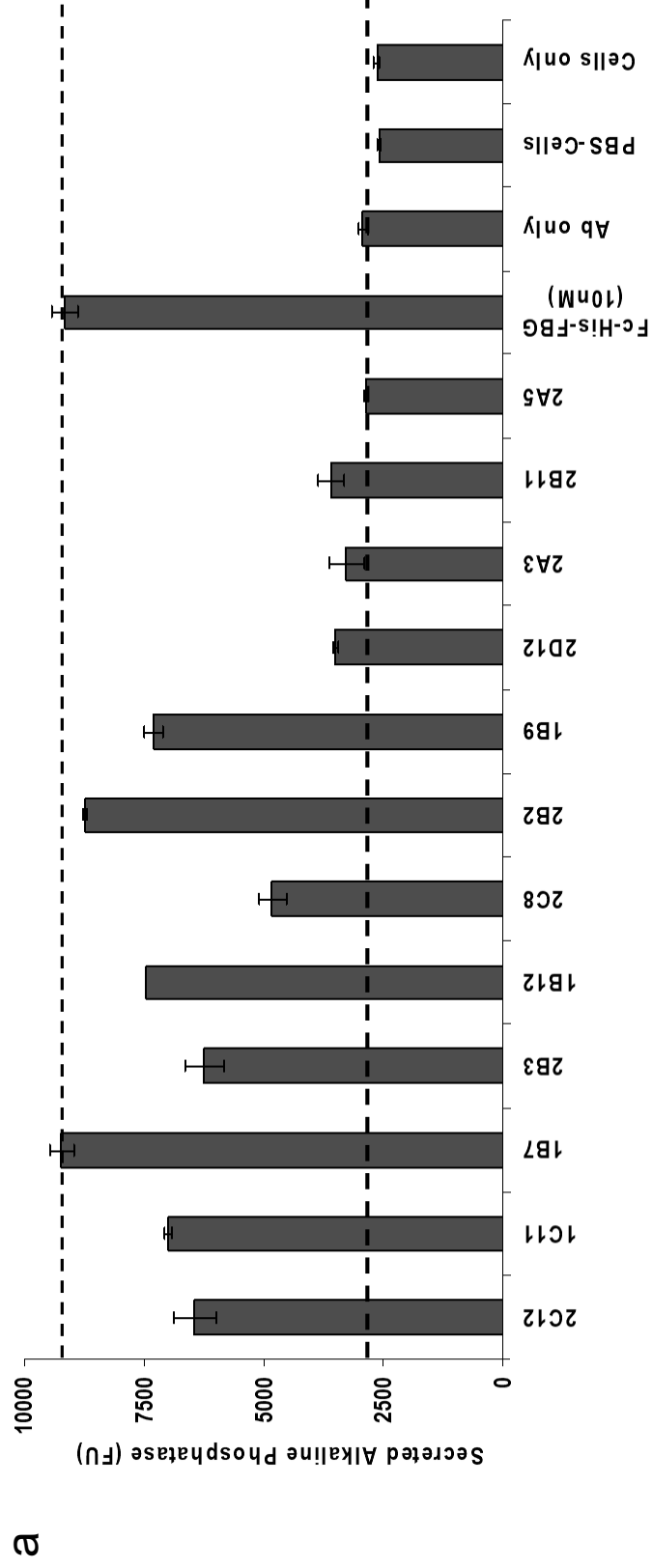
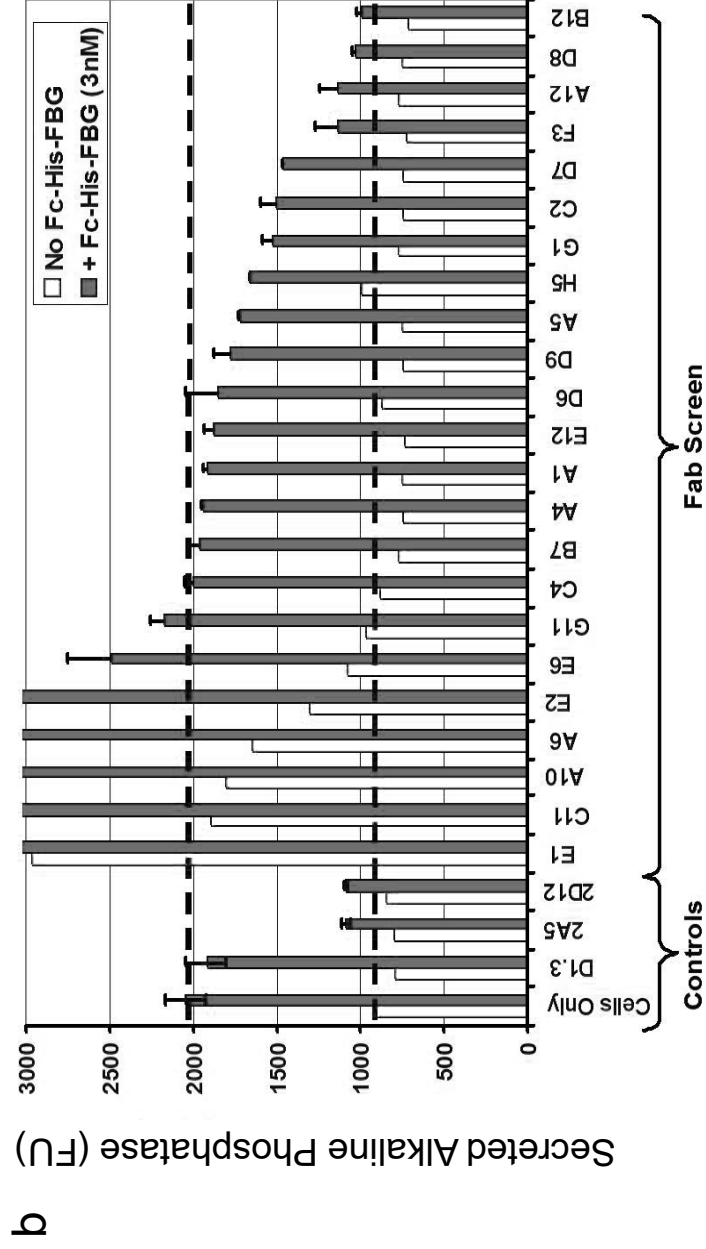


Figure 4



All Fabs screened at 200 nM except B12 which was at 94 nM

Figure 4 (con't)

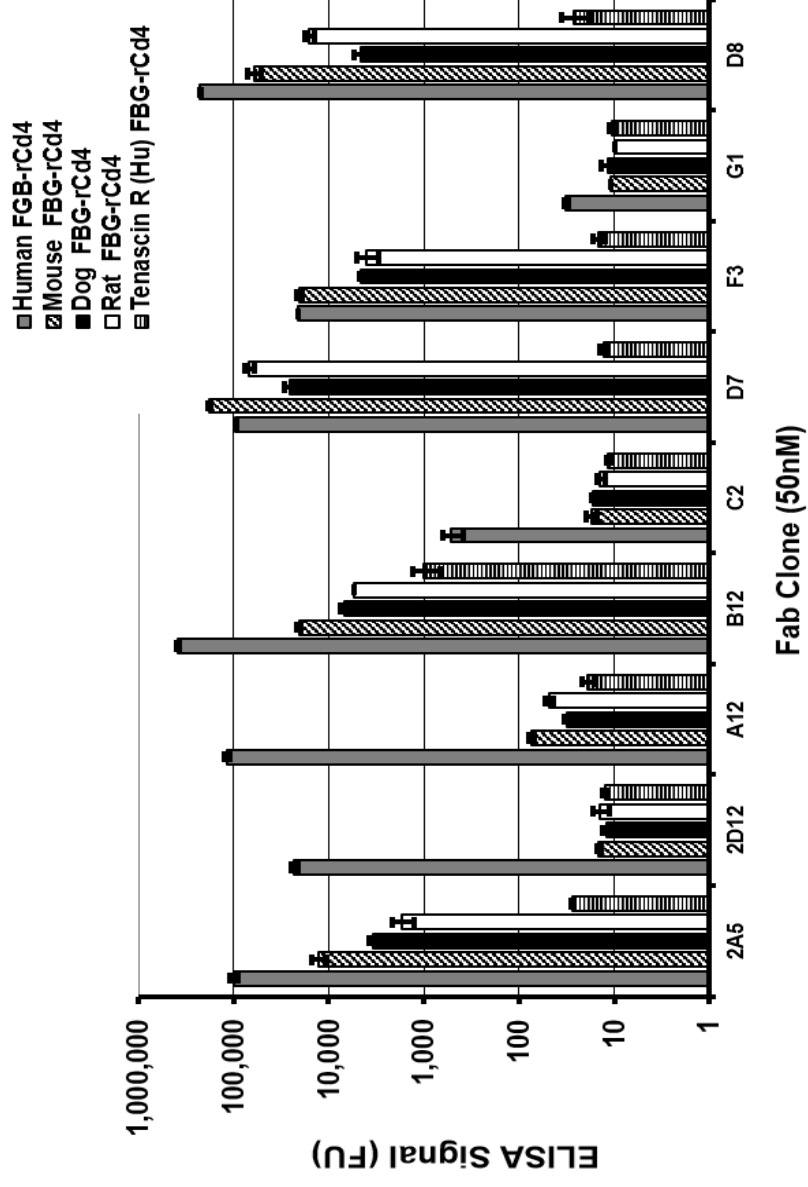
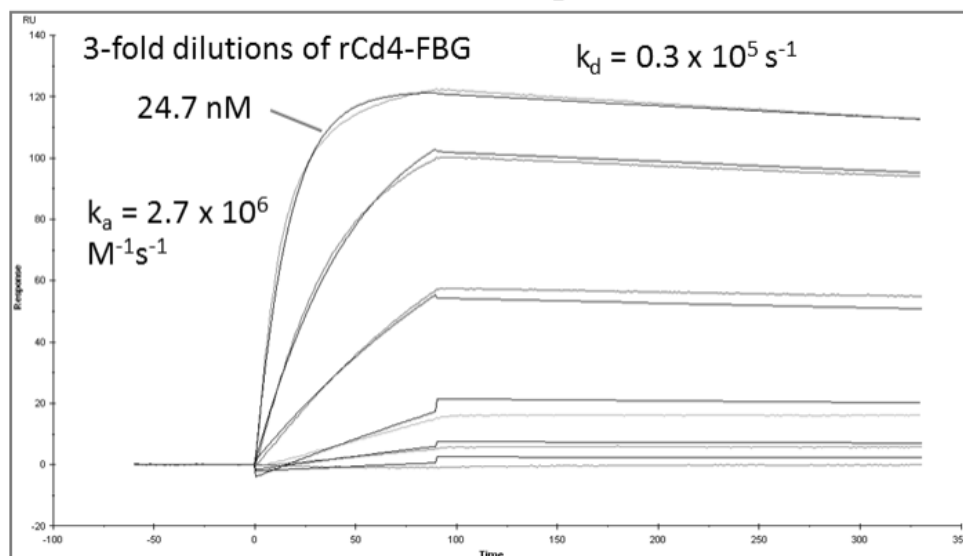
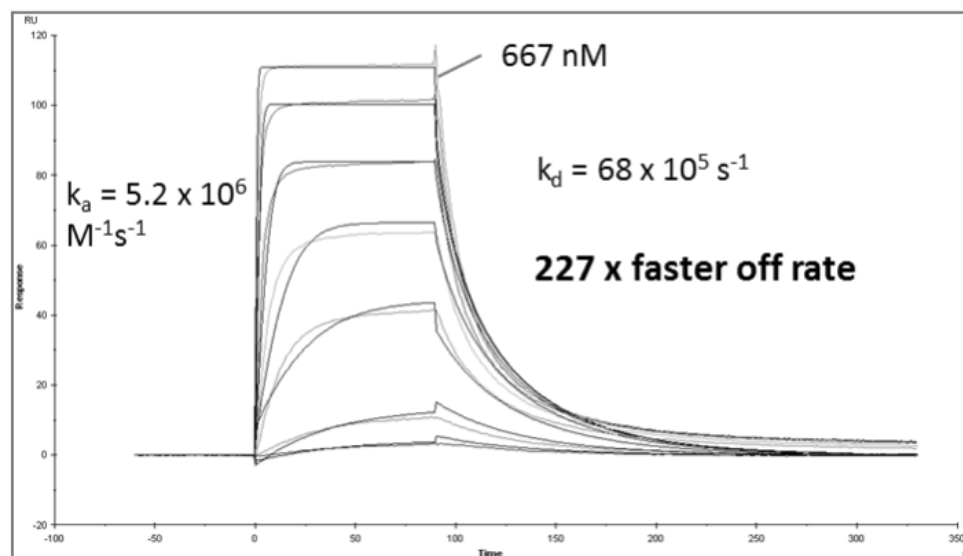


Figure 5

a

Fab B12 – SPR Results**Human TNC FBG – $K_D = 0.11$ nM****Mouse TNC FBG – $K_D = 13$ nM**

Assay format = Fab capture (23 nM) on anti- $C_{L\kappa}$ / anti- $C_{L\lambda}$ CM5 sensor chip followed by rCd4-FBG injection. Regeneration with 10 mM Glycine, pH2

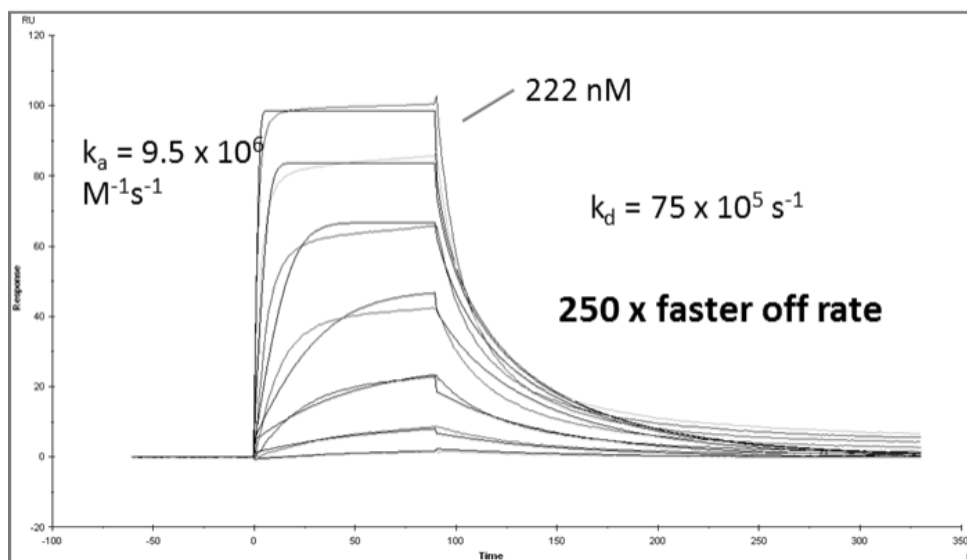
Figure 6a

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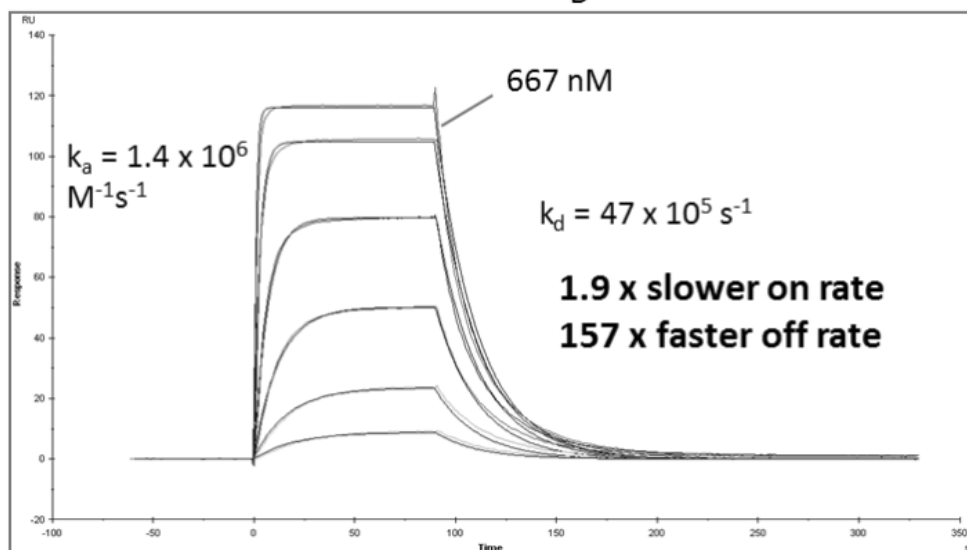
a

Fab B12 – SPR Results

Rat TNR FBG – $K_D = 7.9$ nM



Human TNR FBG – $K_D = 33.9$ nM



Assay format = Fab capture (23 nM) on anti- $C_L\kappa$ / anti- $C_L\lambda$ CM5 sensor chip followed by rCd4-FBG injection. Regeneration with 10 mM Glycine, pH2

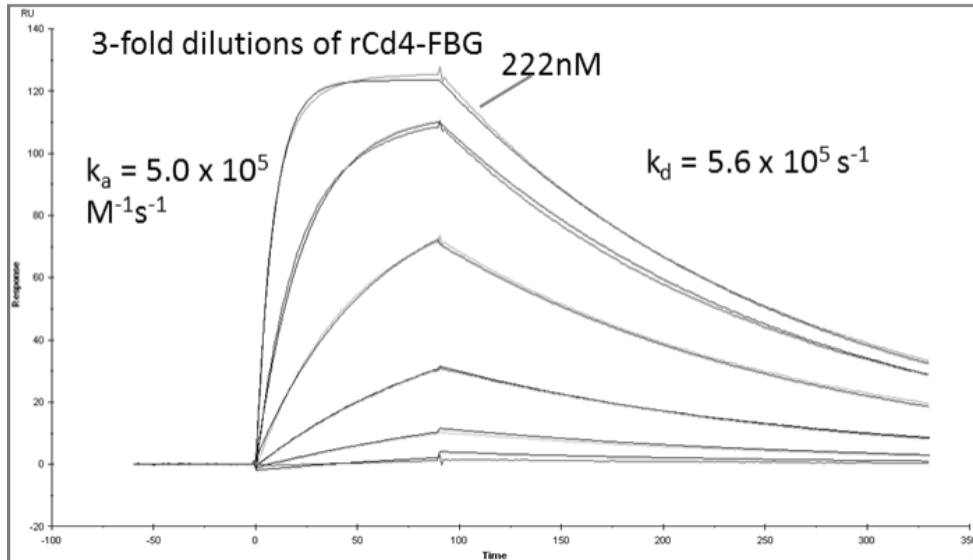
Figure 6a (Con't)

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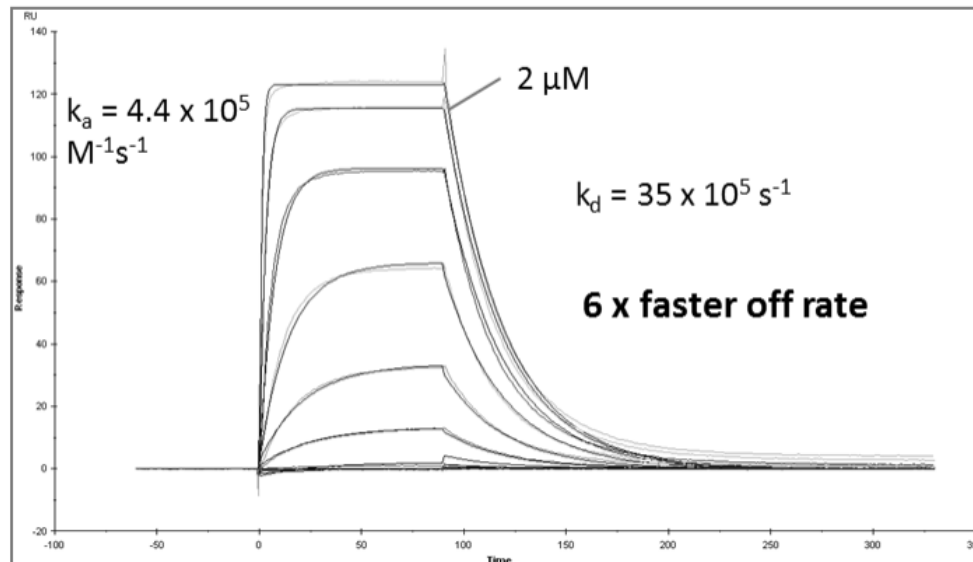
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Fab 2A5 – SPR Results

Human TNC FBG – $K_D = 11.4$ nM



Mouse TNC FBG – $K_D = 78.6$ nM



Assay format = Fab capture (23 nM) on anti-C κ / anti-C λ CM5 sensor chip followed by rCd4-FBG injection. Regeneration with 10 mM Glycine, pH2

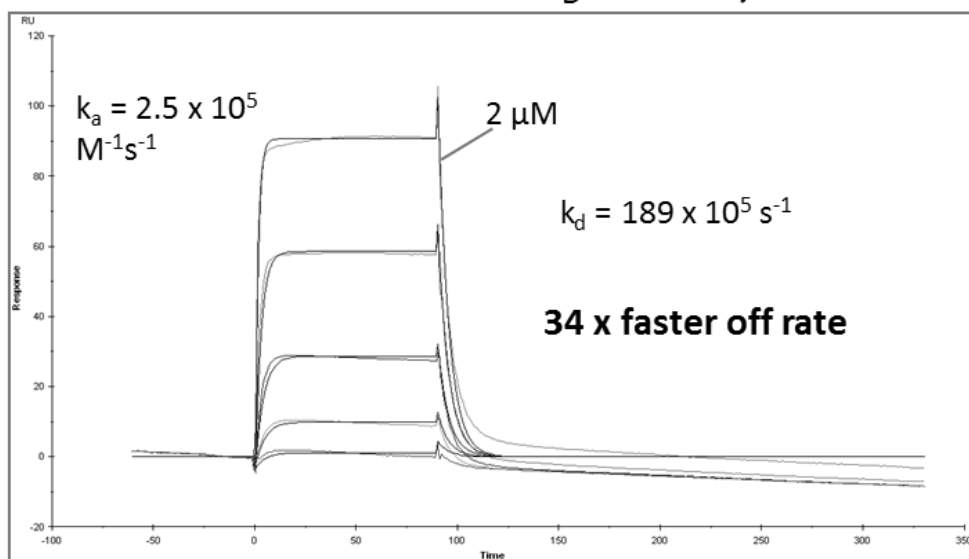
Figure 6b

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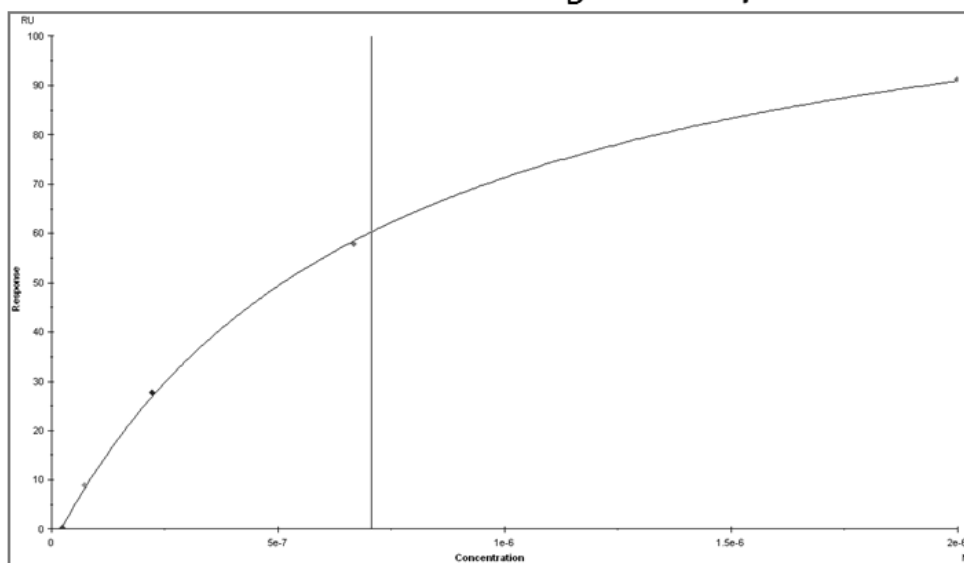
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Fab 2A5 – SPR Results

Human TNR FBG – $K_D = 0.76 \mu\text{M}$



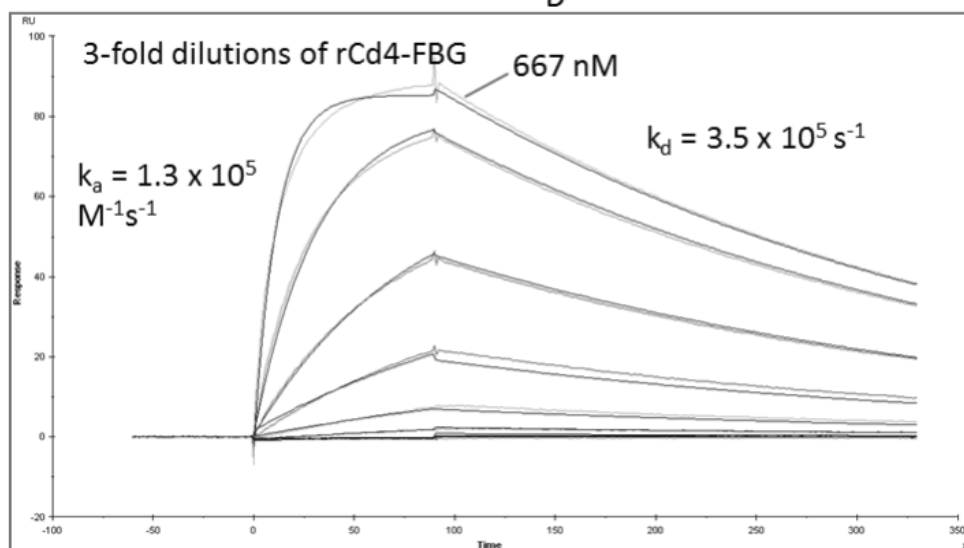
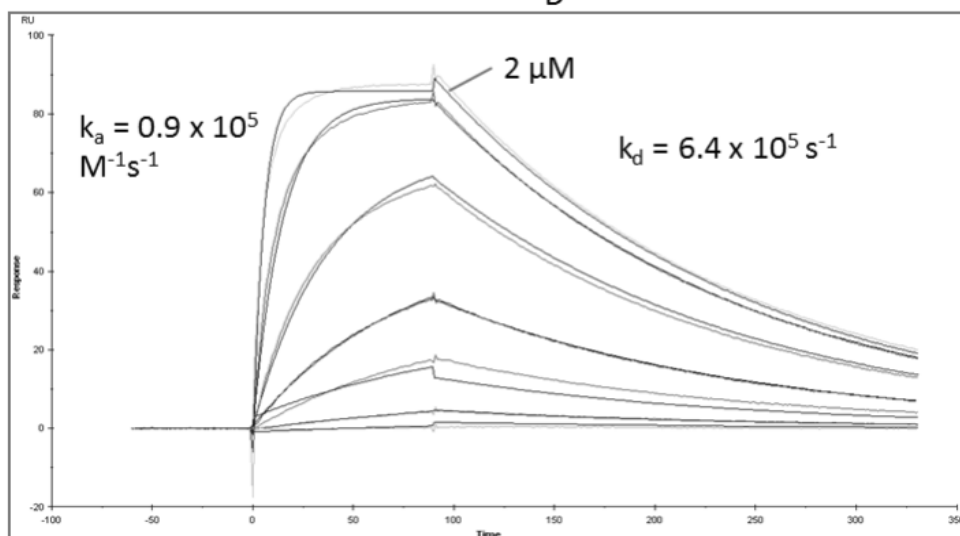
Human TNR FBG – $K_D = 0.71 \mu\text{M}$



Assay format = Fab capture (23 nM) on anti- $\text{C}_L\kappa$ / anti- $\text{C}_L\lambda$ CM5 sensor chip followed by rCd4-FBG injection. Regeneration with 10 mM Glycine, pH2

Figure 6b (Con't)

c

Fab F3 – SPR Results**Human TNC FBG – $K_D = 27.4$ nM****Mouse TNC FBG – $K_D = 70.6$ nM**

Assay format = Fab capture (23 nM) on anti- $\text{C}_{\text{L}}\kappa$ / anti- $\text{C}_{\text{L}}\lambda$ CM5 sensor chip followed by rCd4-FBG injection. Regeneration with 10 mM Glycine, pH2

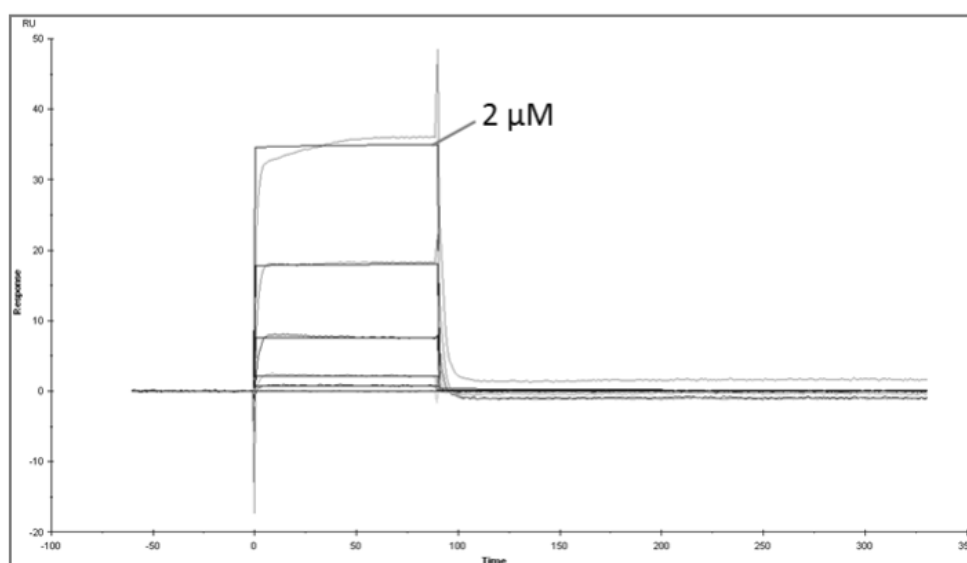
Figure 6c

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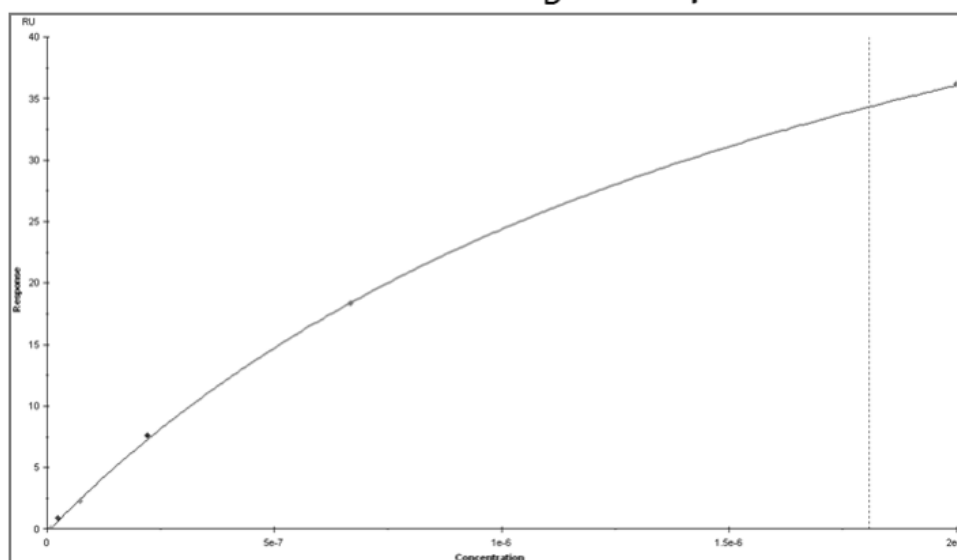
C

Fab F3 – SPR Results

Human TNR FBG – off rate too rapid



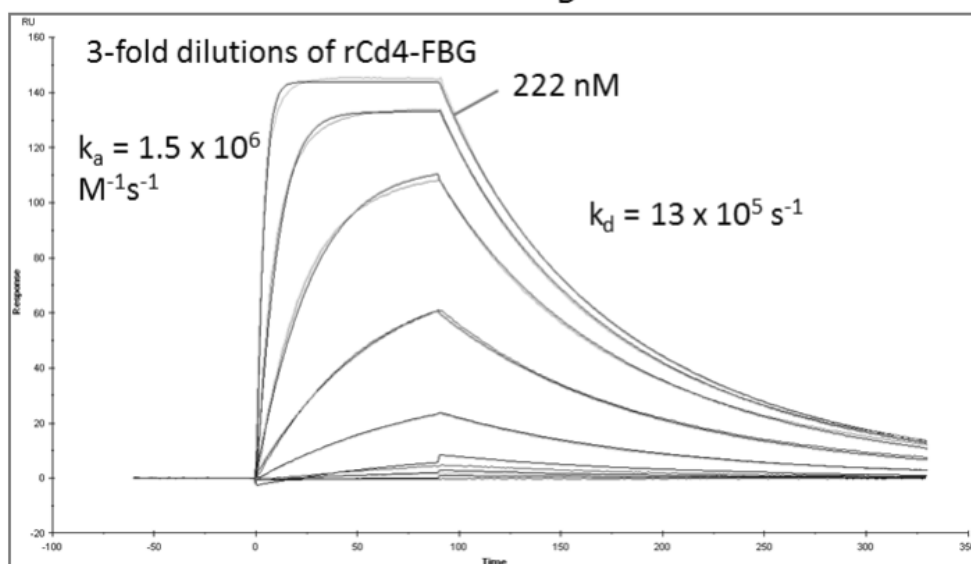
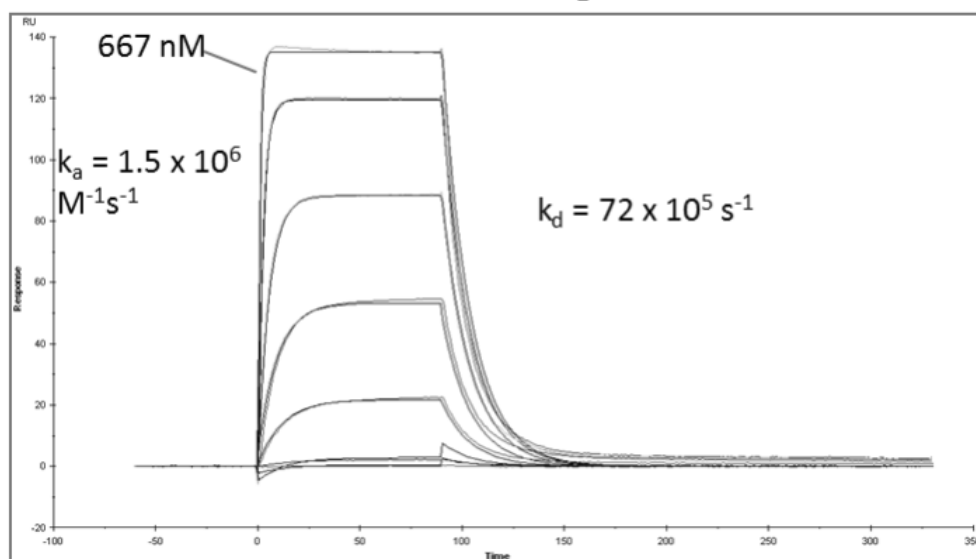
Human TNR FBG – $K_D = 1.8 \mu\text{M}$



Assay format = Fab capture (23 nM) on anti- $\text{C}_{\text{L}}\kappa$ / anti- $\text{C}_{\text{L}}\lambda$ CM5 sensor chip followed by rCd4-FBG injection. Regeneration with 10 mM Glycine, pH2

Figure 6c (Con't)

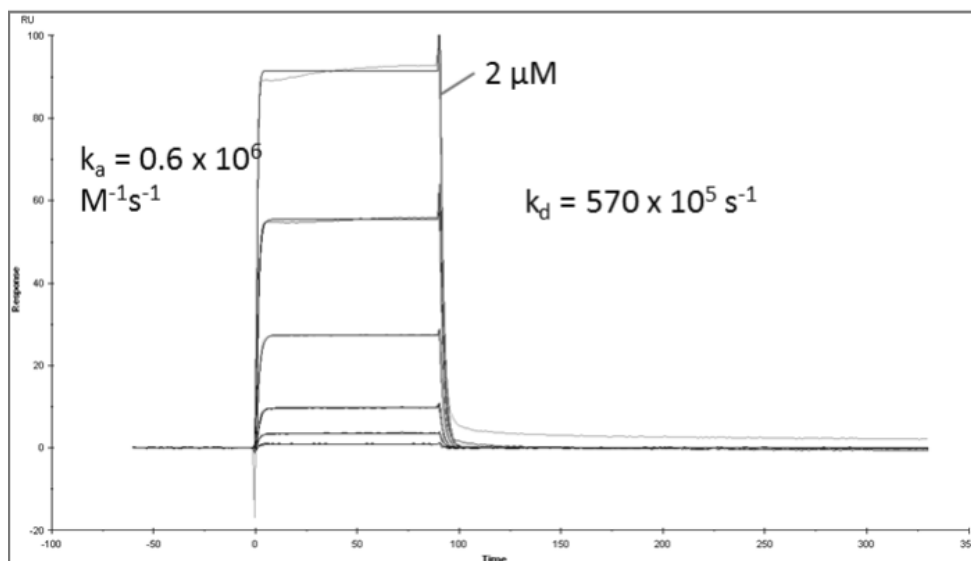
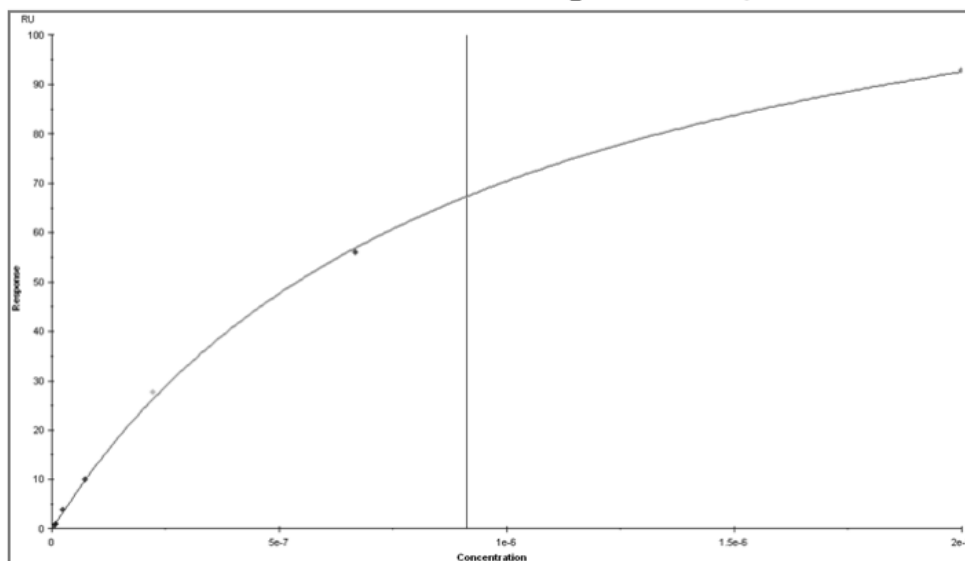
d

Fab D8 – SPR Results**Human TNC FBG – $K_D = 8.5$ nM****Mouse TNC FBG – $K_D = 48.4$ nM**

Assay format = Fab capture (23 nM) on anti- $C_L\kappa$ / anti- $C_L\lambda$ CM5 sensor chip followed by rCd4-FBG injection. Regeneration with 10 mM Glycine, pH2

Figure 6d

d

Fab D8 – SPR ResultsHuman TNR FBG – $K_D = 1.03 \mu\text{M}$ Human TNR FBG – $K_D = 1.11 \mu\text{M}$ 

Assay format = Fab capture (23 nM) on anti- $\text{C}_\text{L}\kappa$ / anti- $\text{C}_\text{L}\lambda$ CM5 sensor chip followed by rCd4-FBG injection. Regeneration with 10 mM Glycine, pH2

Figure 6d (Con't)

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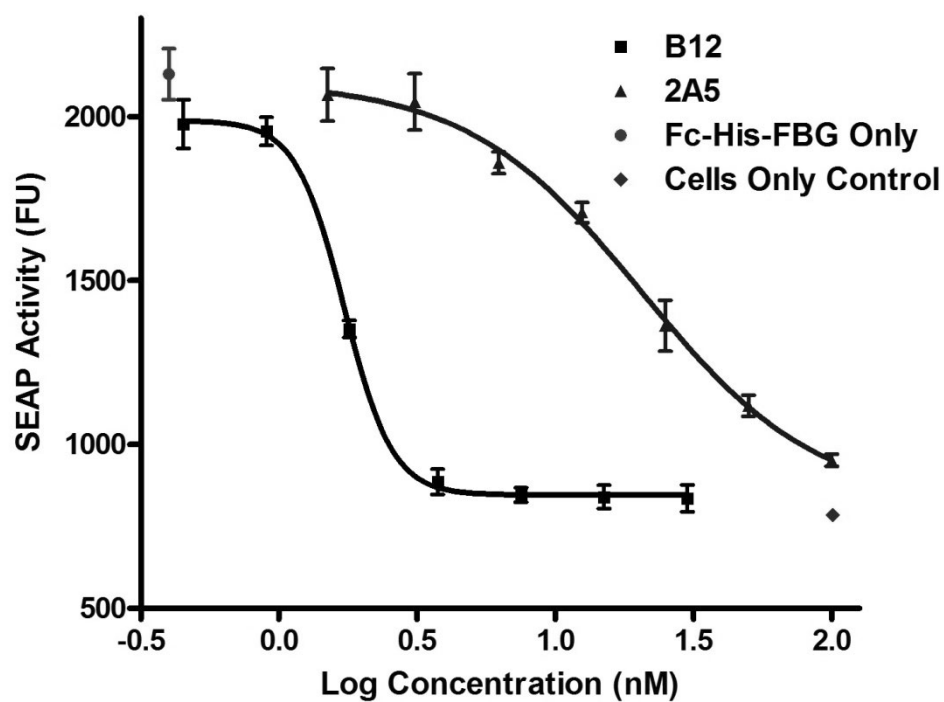
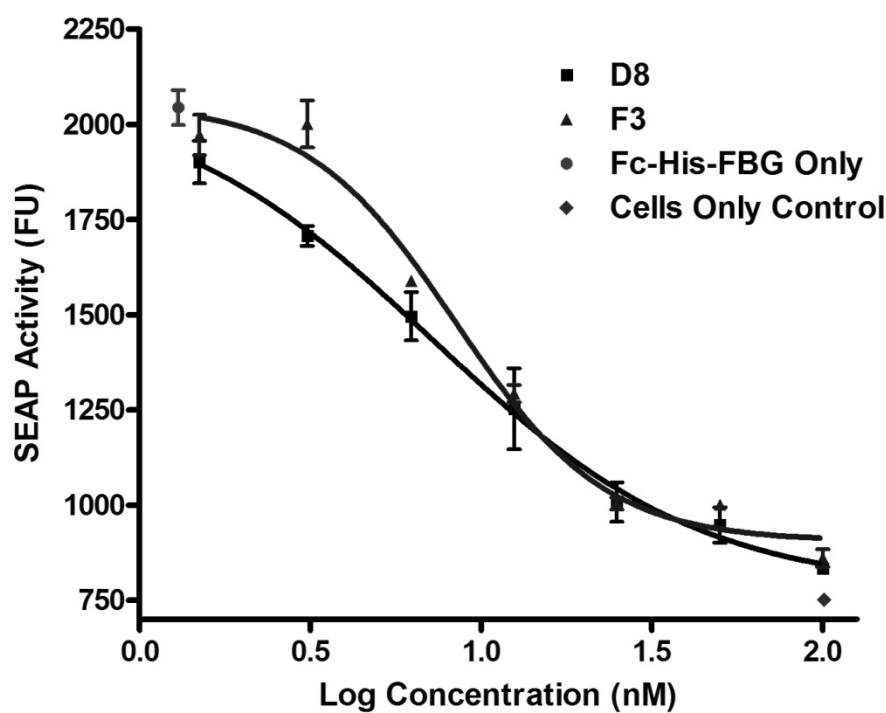


Figure 7

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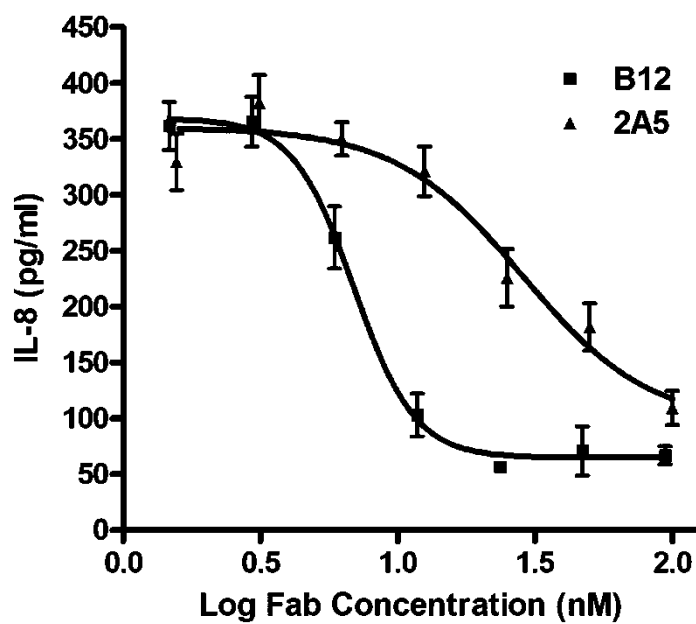
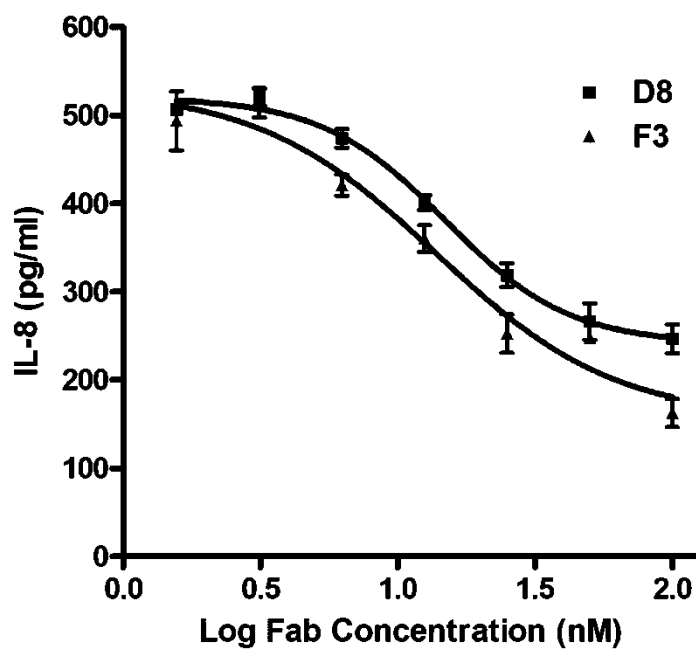
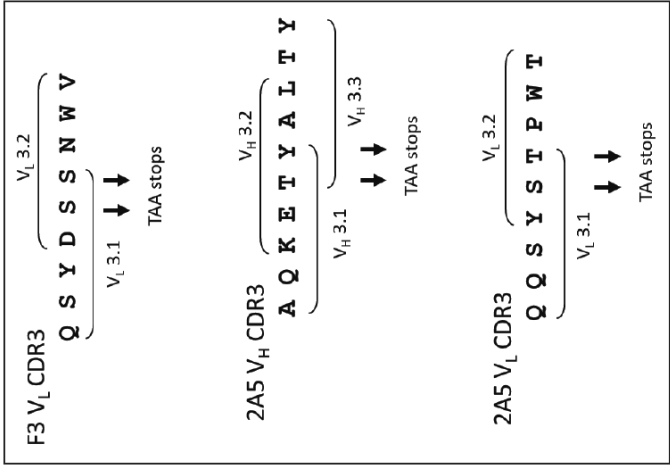


Figure 8

a

Heavy chain:



Light chain:

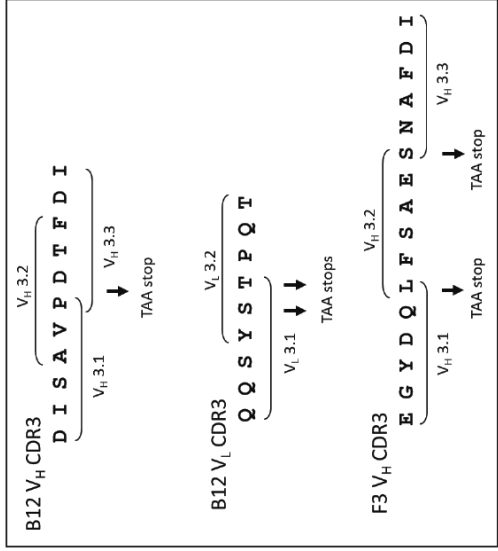


Figure 9

b

Oligonucleotides for VH and VL CDR3 mutagenesis

F3 VH 3.1	AGCATTACTCTCAGCAGAAAAASNNNSNNNSNNNTCTCGCACAGTAATACACAGCCGTGTC	SEQ ID NO: 97
F3 VH 3.2	CTGGCCCCAGATATCAAAAGCATTSNNNSNNNSNNNTTGGTCATAGCCTTCTCTCGCACAG	SEQ ID NO: 98
F3 VH 3.3	GGTGACCAGGGTTCCCTGGCCCCASNNNSNNNSNNNCTCAGCAGAAAAATAGTTGGTCATAGCC	SEQ ID NO: 99
F3 VL 3.1	GGTCCCTCCGCCGAACACCAATTSNNNSNNNSNNNACAGTAGTCAGCCTCGTCCTC	SEQ ID NO: 100
F3 VL 3.2	GGTGACCTTGGTCCCTCCGCCGAASNNNSNNNSNNNATAAGACTGACAGTAGTCAGC	SEQ ID NO: 101
B12 VH 3.1	CTTGGCCCCAGATATCAAAAGTATCSNNNSNNNSNNNTTTTGCACAGTAATACAAGGCCGTGTC	SEQ ID NO: 102
B12 VH 3.2	CATTGTCCCTTGGCCCCAGATATCSNNNSNNNSNNNCGAGATATCTTTTGCACAGTAATAC	SEQ ID NO: 103
B12 VH 3.3	GGTGACCAATTGTCCCTTGGCCCCASNNNSNNNSNNNGACTGCCGAGATATCTTTTGCACAG	SEQ ID NO: 104
B12 VL 3.1	GGTCCCTTGGCCGAACGCTGAGGSNNNSNNNSNNNACAGTAGTAAGTTGCAAAATCTTC	SEQ ID NO: 105
B12 VL 3.2	GATATCCACTTTGGTCCCTTGGCCGAASNNNSNNNSNNNACTCTGTTGACAGTAGTAAGTTGC	SEQ ID NO: 106
2A5 VH 3.1	GGTTCCCTGGCCCCAGTAGGTCAAGGCSNNNSNNNSNNNTGTTGCACAGTAATACAGGCCGT	SEQ ID NO: 107
2A5 VH 3.2	CAGGGTTCCCTGGCCCCAGTAGGTSNNNSNNNSNNNCTGGGCTGTTGCACAGTAATACAC	SEQ ID NO: 108
2A5 VH 3.3	GGTGACCAGGGTTCCCTGGCCCCASNNNSNNNSNNNCTCTTTCTGGGCTGTTGCACAGTA	SEQ ID NO: 109
2A5 VL 3.1	GGTCCCTTGGCCGAACGCTCCACGGSNNNSNNNSNNNACAGTAGTAAGTTGCAAAATCTTC	SEQ ID NO: 110
2A5 VL 3.2	CTCCACCTTGGTCCCTTGGCCGAASNNNSNNNSNNNACTCTGTTGACAGTAGTAAGTTGC	SEQ ID NO: 111

Figure 9 (con't)

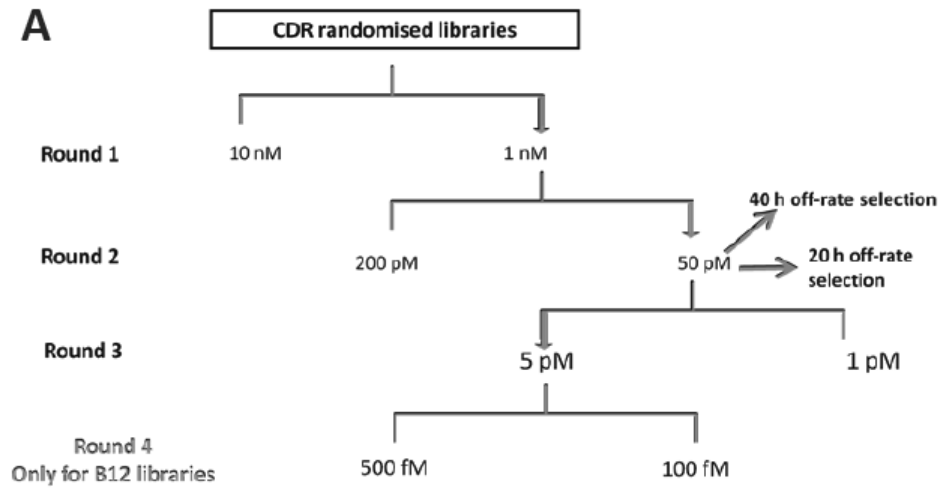
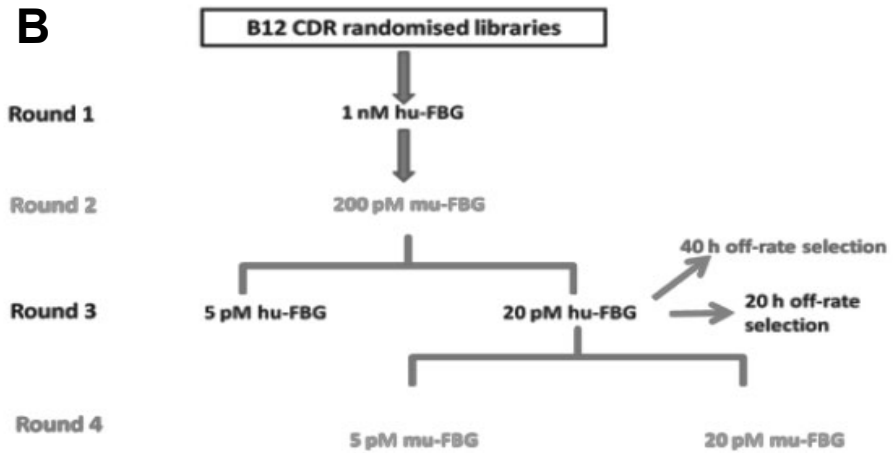


Figure 10

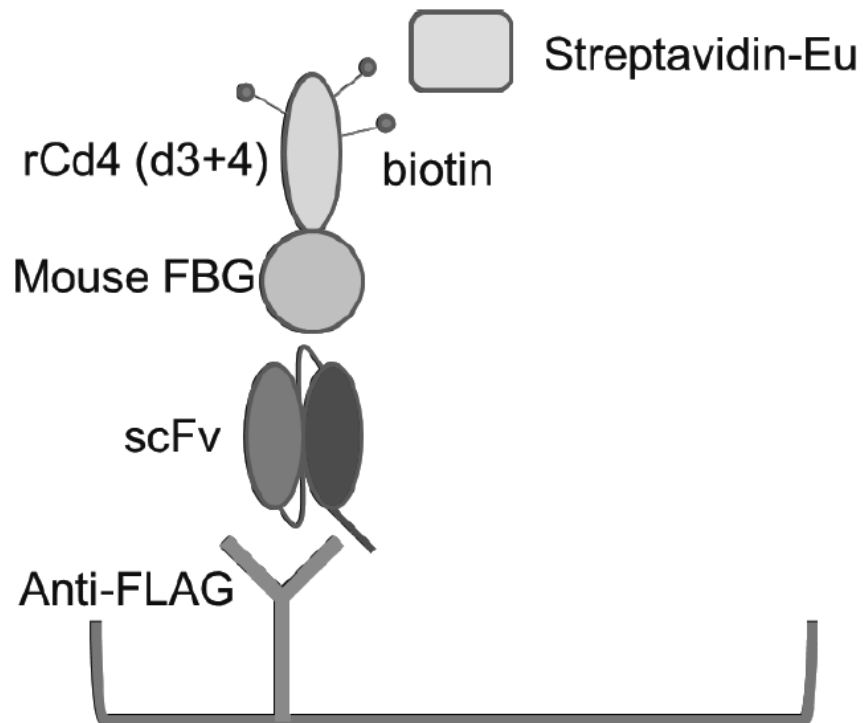


Figure 11

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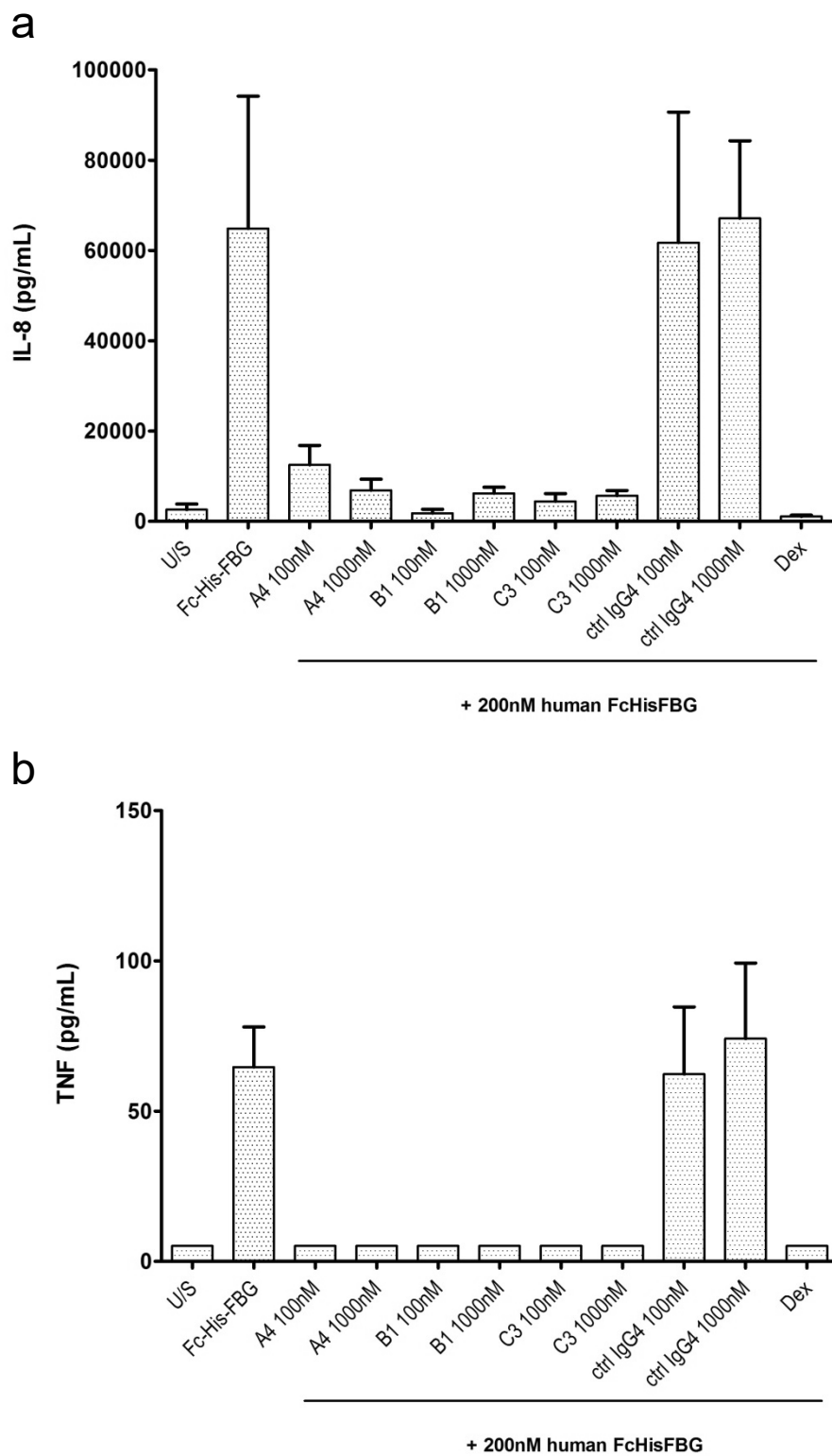


Figure 12

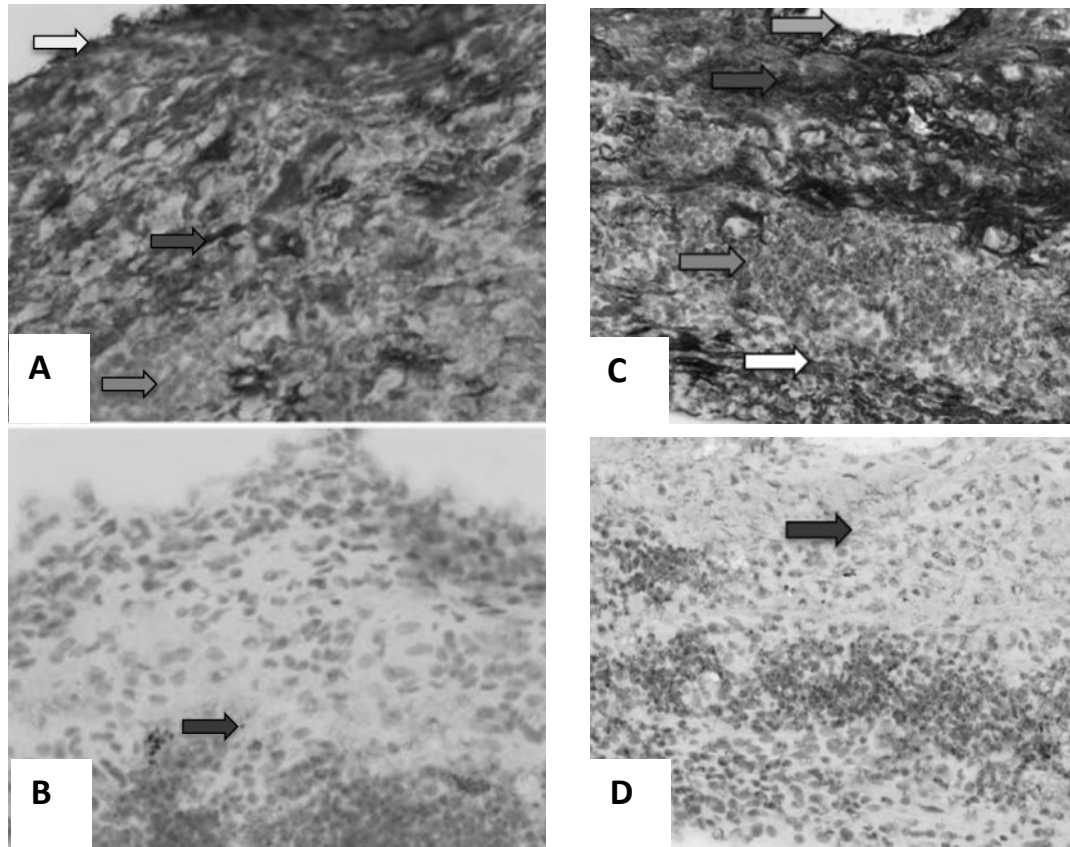


Figure 13

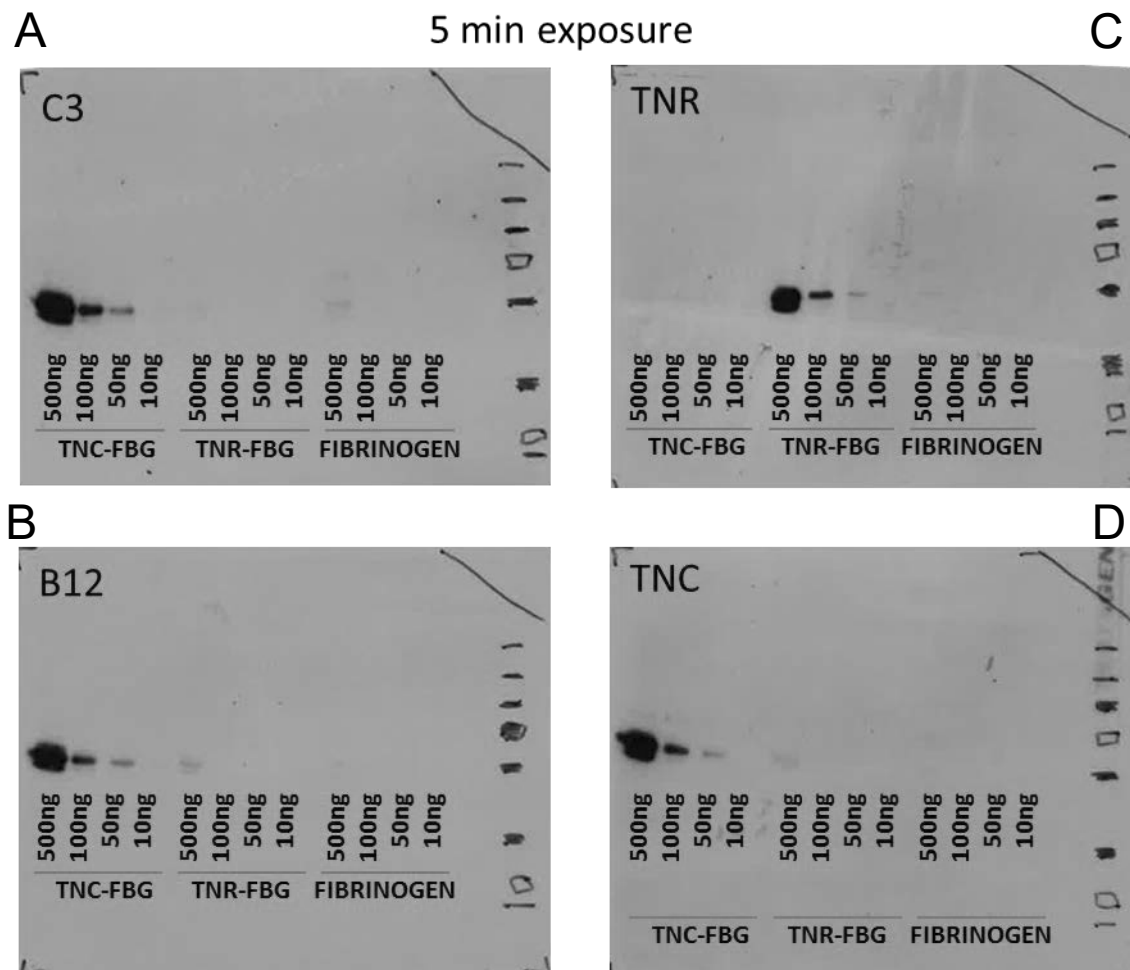


Figure 14

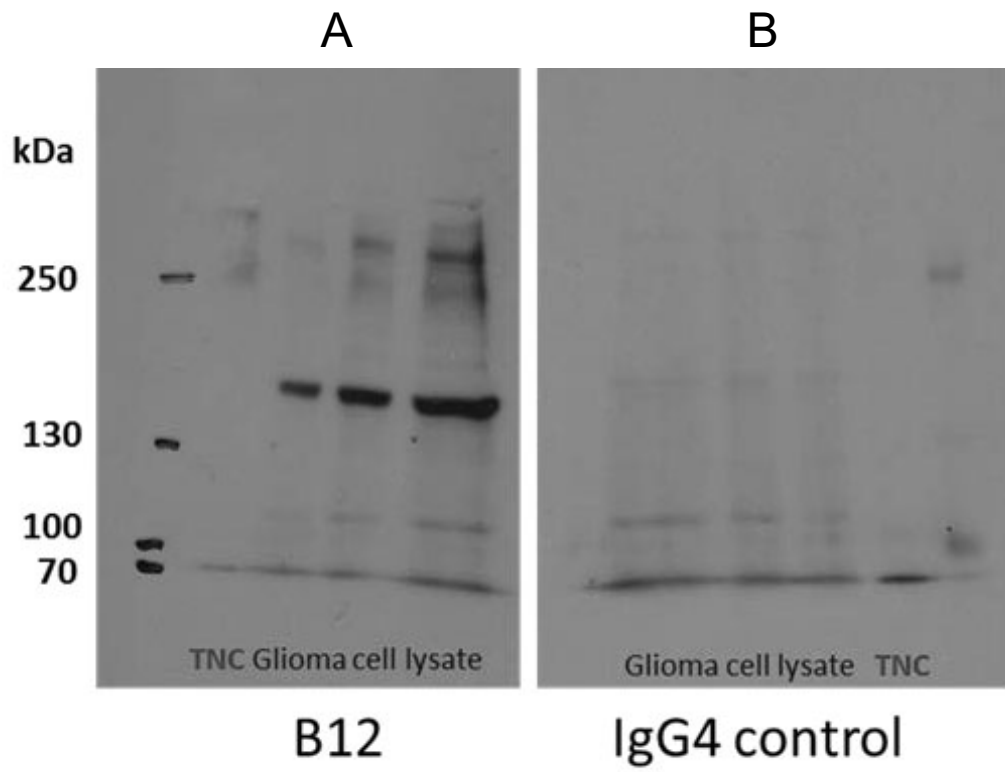
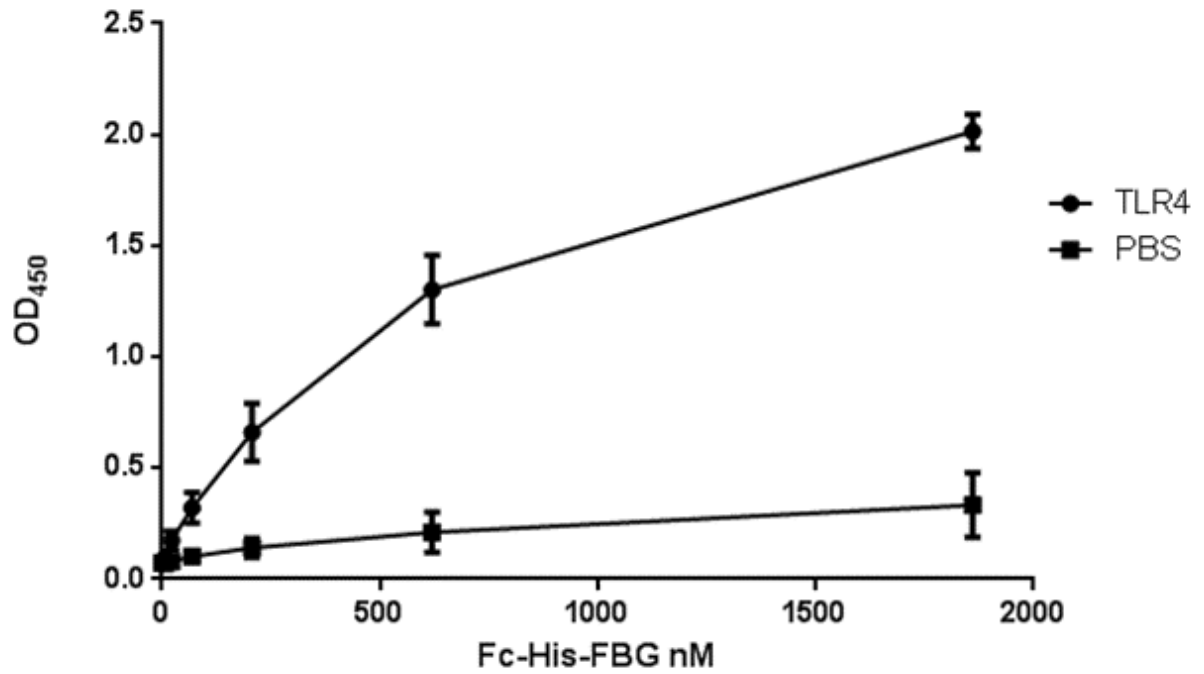


Figure 15

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A



B

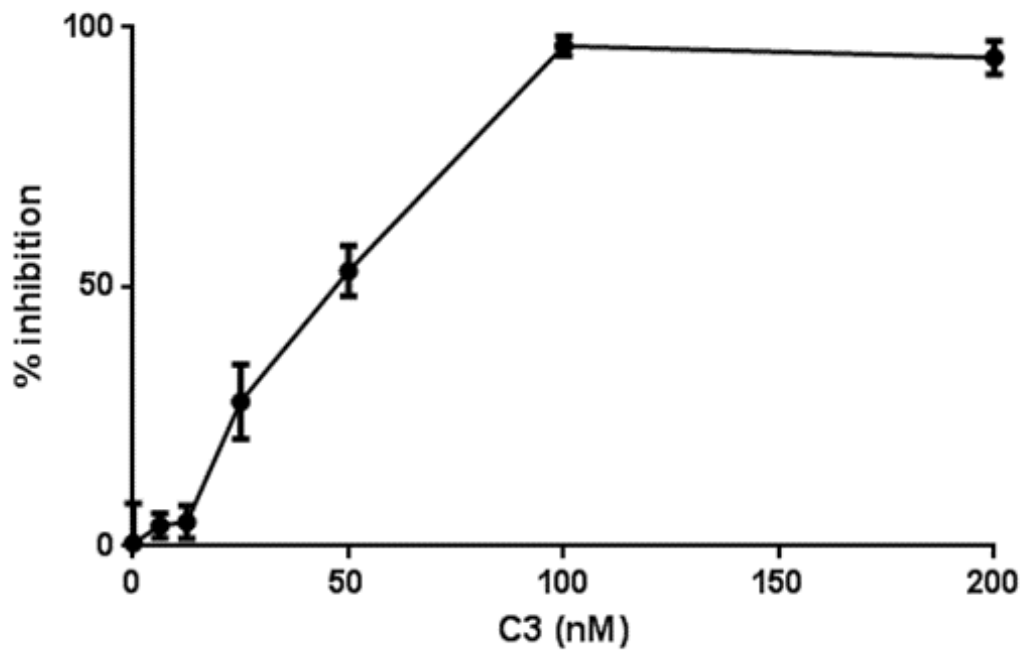
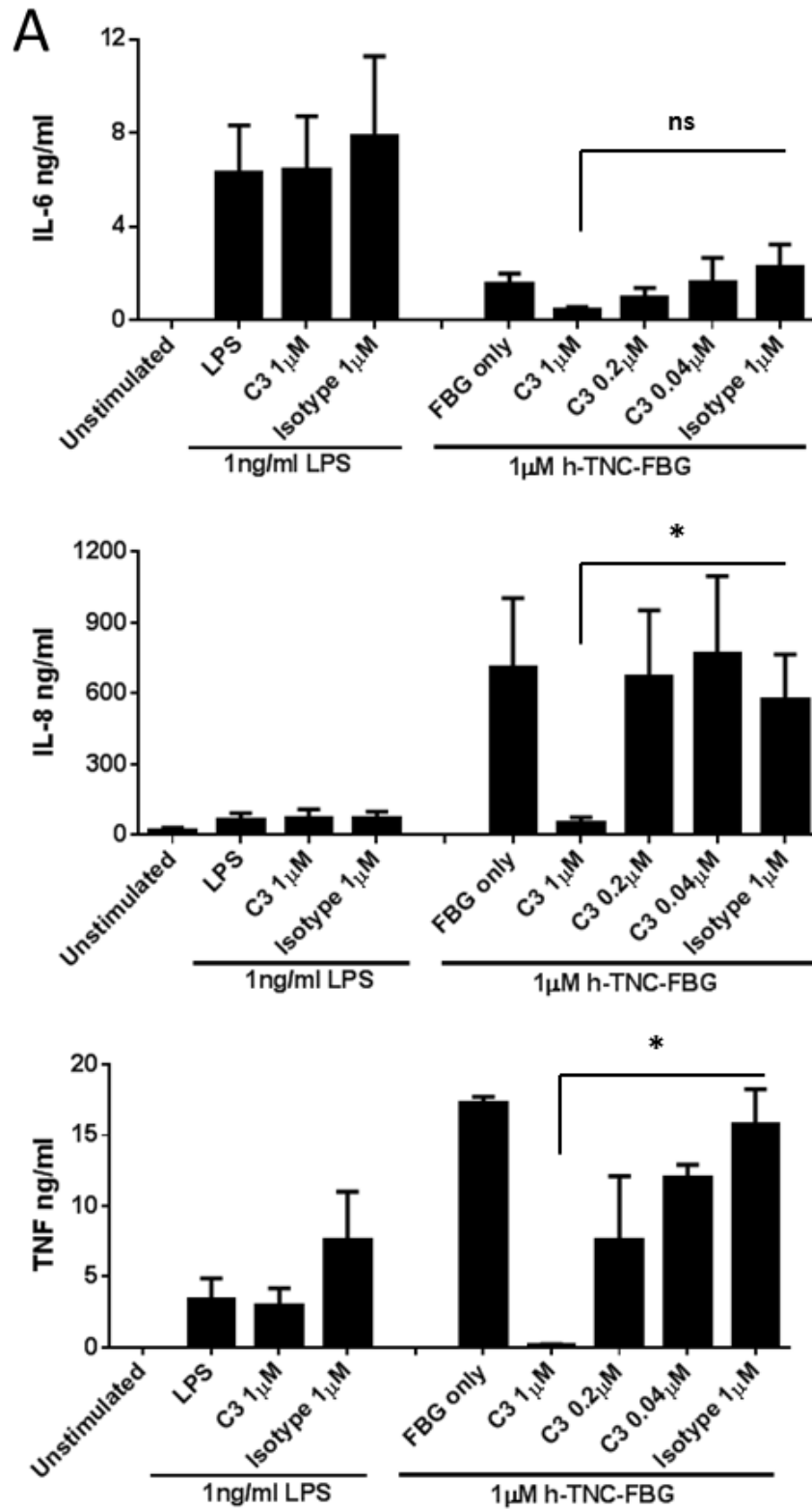


Figure 16

**Figure 17**

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B

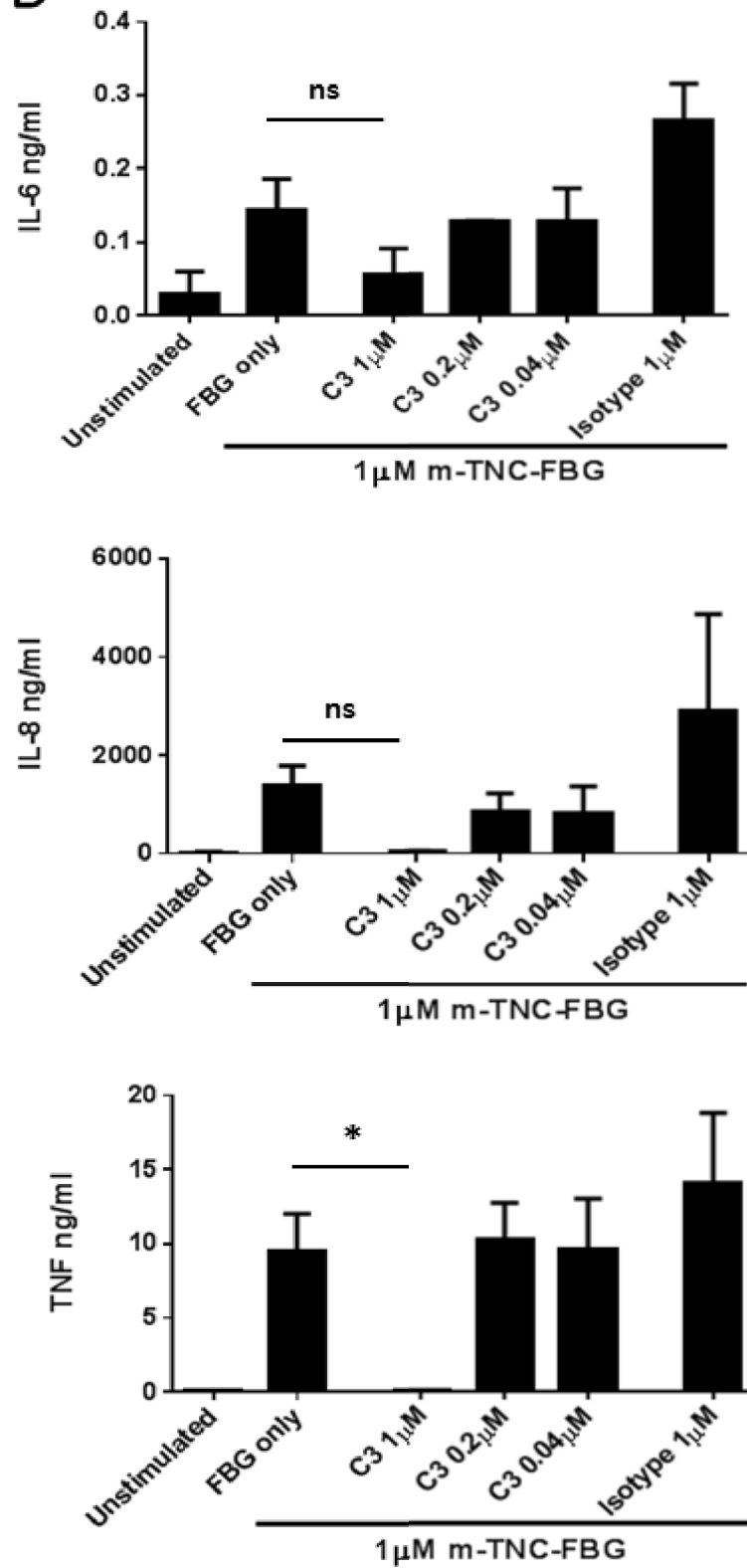


Figure 17 cont'd

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C

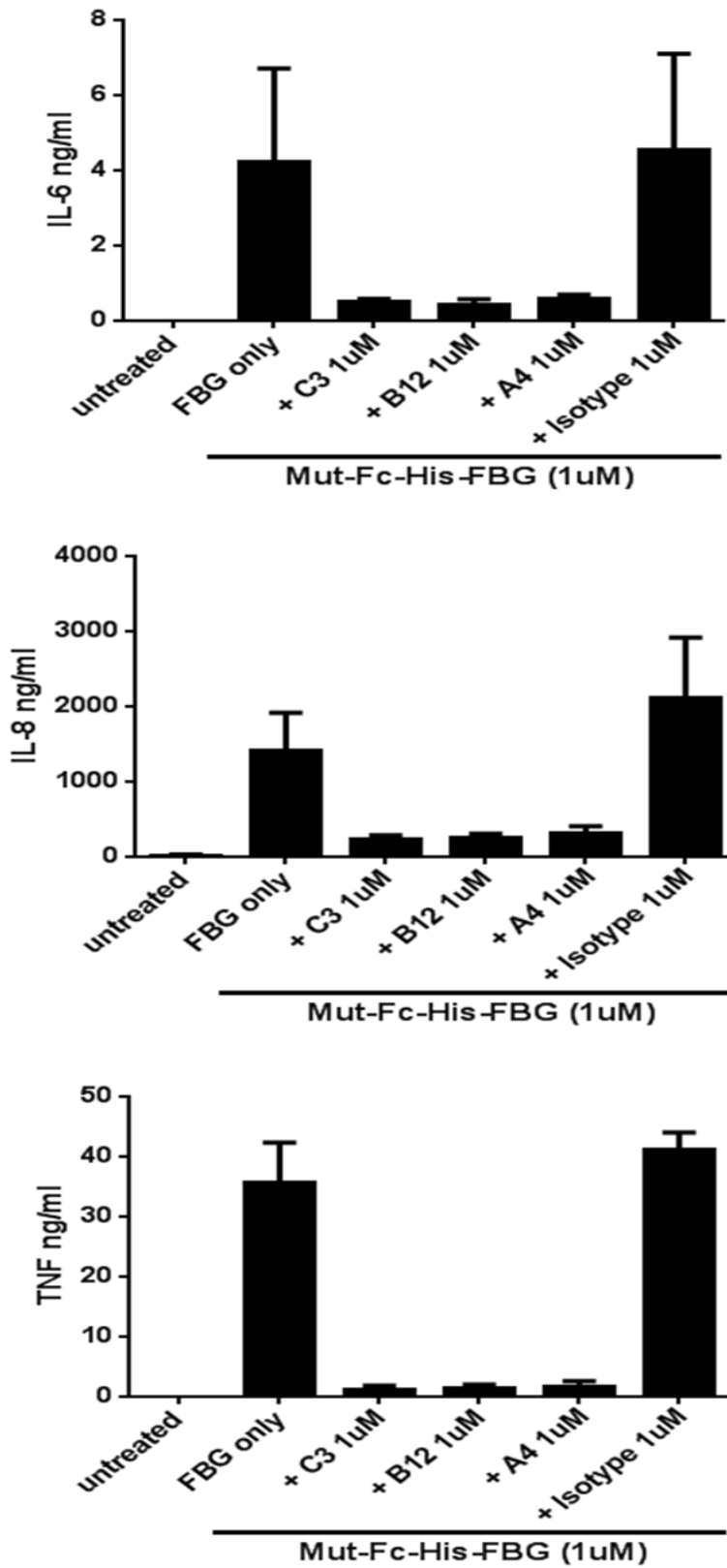


Figure 17 cont'd

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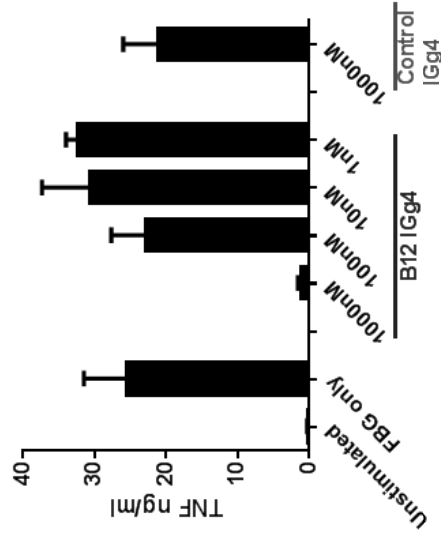
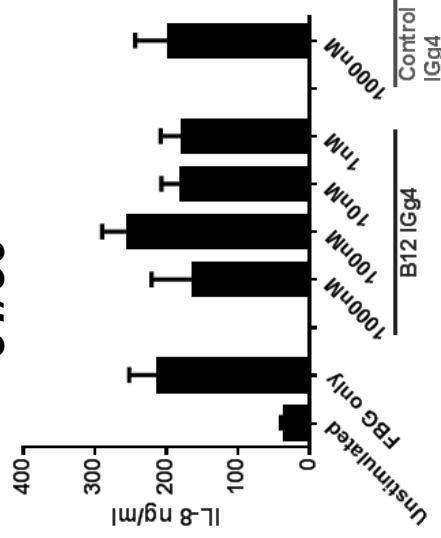
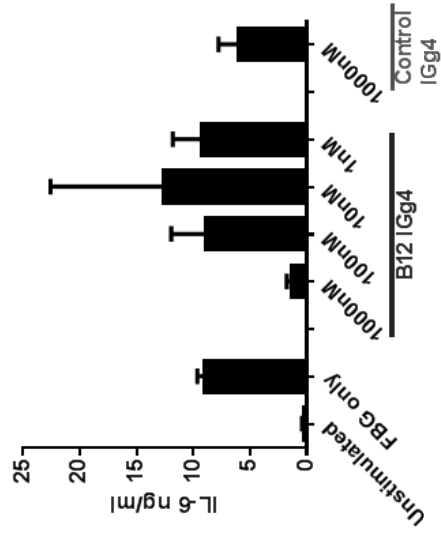
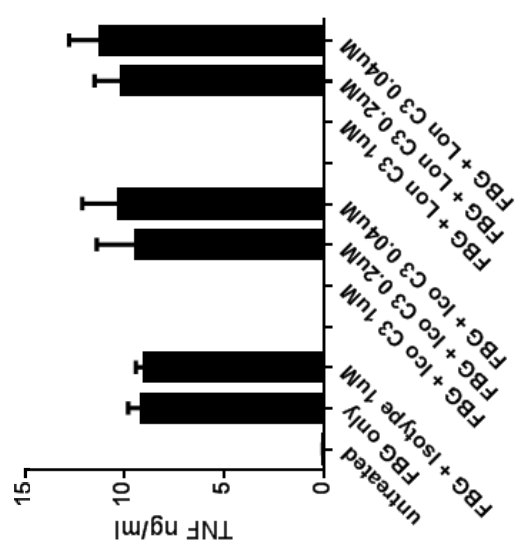
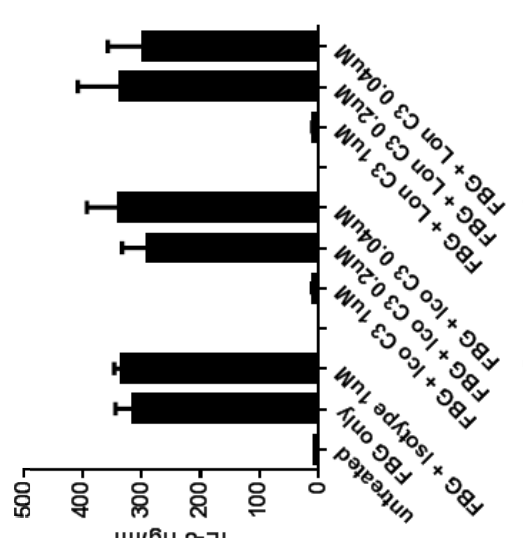
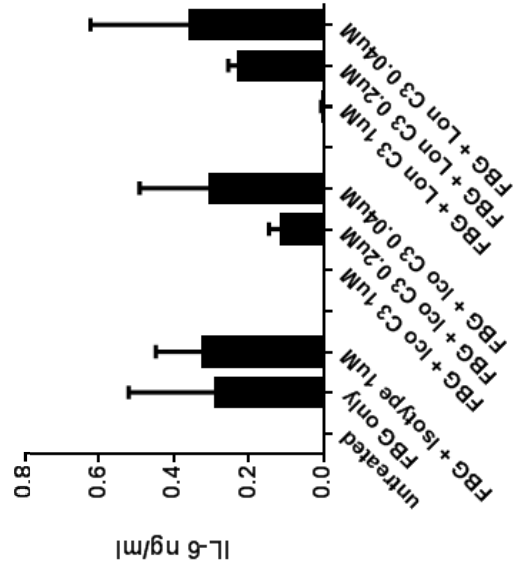
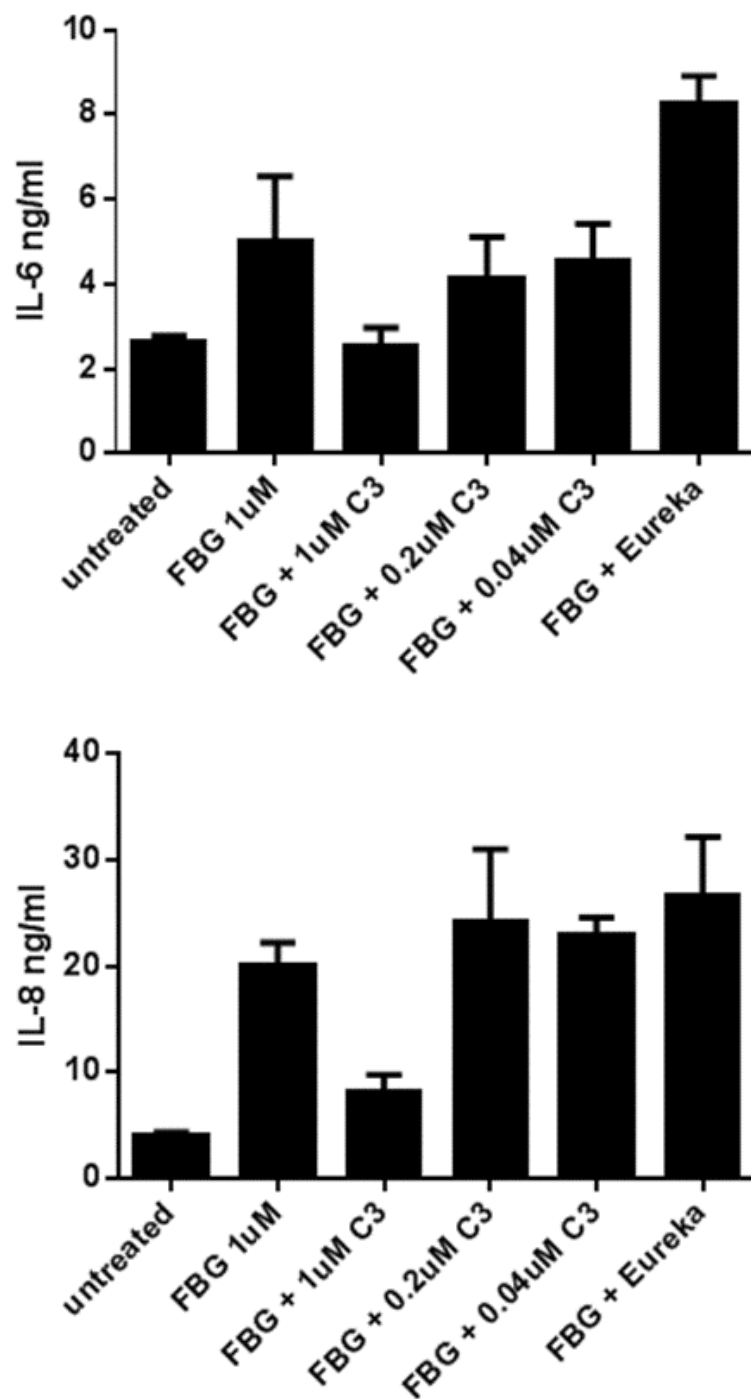
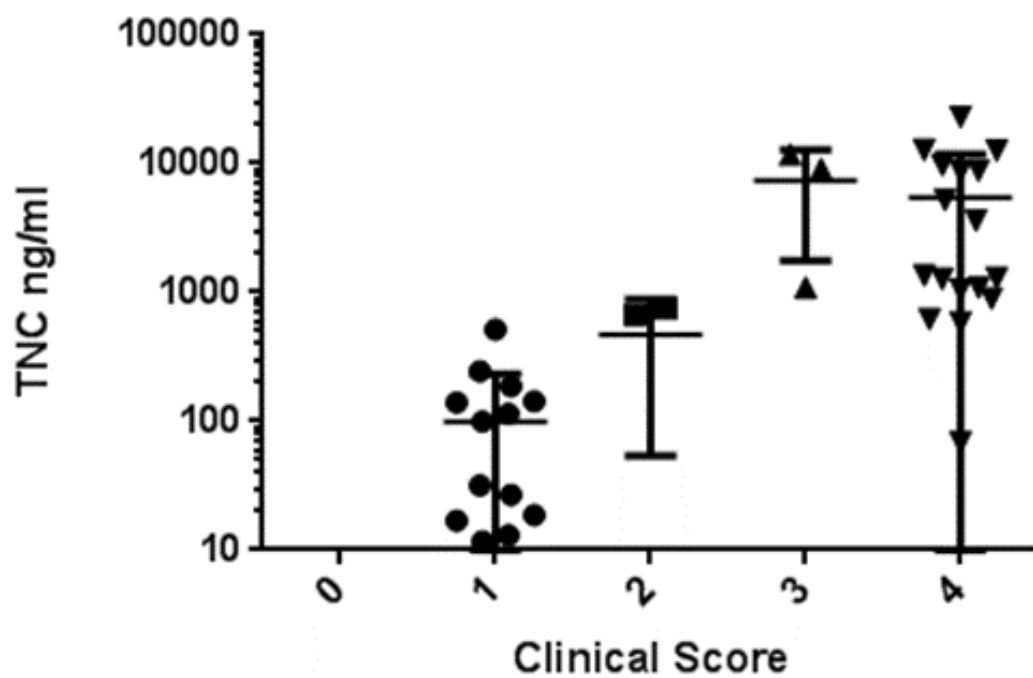


Figure 18

A

B

**Figure 19**

**Figure 20**

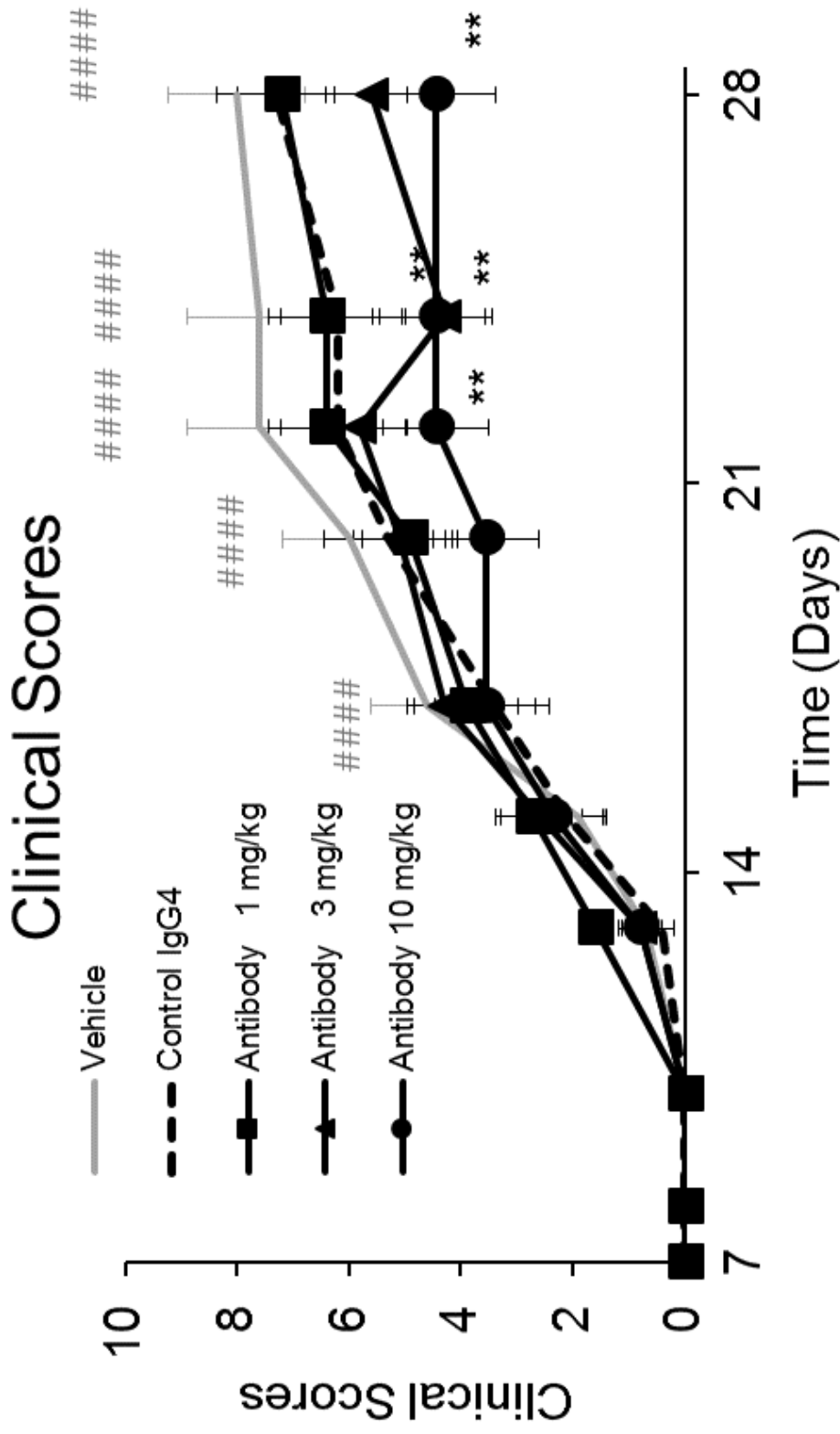


Figure 21

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Hind Paw Volumes

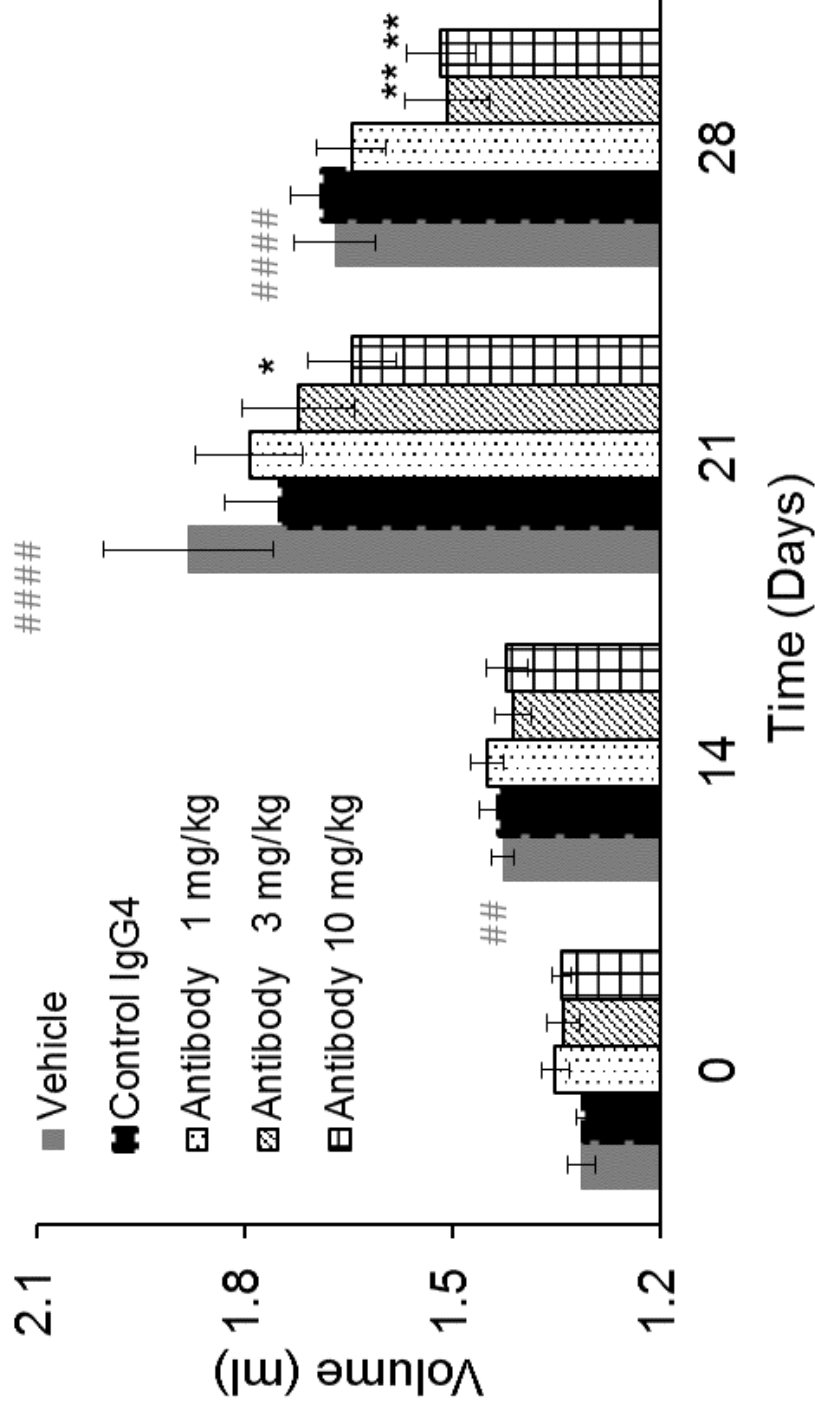


Figure 22

Construct	N-term	Species	Primer name (F)	Primer sequence (F)	Primer name (R)	Primer sequence (R)
FBG-X	minus	human	2561	GGTACCTCGCGAATGCACTAG	2562	CAATGCAGGCCCTCTGCAGTCG
FBG-X	plus	human	2565	TTTTTCCATGGCCGAGATTGGACTCCTGTACCCCTT CCCCAAAGATTGCTCTCAGGC	2562	CAATGCAGGCCCTCTGCAGTCG
FBG-X	minus	mouse	2561	GGTACCTCGCGAATGCACTAG	2562	CAATGCAGGCCCTCTGCAGTCG
FBG-X	plus	mouse	2566	TTTTTCCATGGCCGAGATTGGACTCCTGTACCCCTT CCCTCGCGACTGCTCAGAG	2562	CAATGCAGGCCCTCTGCAGTCG
X-FBG	minus	human	2567C	TTTTTGGATCCCATCATCATCAGCACTCACTTCCCA AAGATTGCTCTCAGGC	2570	TTTTTAAGCTTTTATTACGCCCGT TTACGCCGACCCCTC
X-FBG	plus	human	2567	TTTTTGGATCCCATCATCATCAGCACTCACTTGGAC TCCTGTACCCCTTCCCAWAGATTGCTCTCAGGC	2570	TTTTTAAGCTTTTATTACGCCCGT TTACGCCGACCCCTC
X-FBG	minus	mouse	2569C	TTTTTGGATCCCATCATCATCAGCACTCACTTCCCTC GCGACTGCTCAGAG	2571	TTTTTAAGCTTTTATTACGCCCGT TTCCGCCGACCTTC
X-FBG	plus	mouse	2569C	TTTTTGGATCCCATCATCATCAGCACTCACTTGGAC TCCTGTACCCCTTCCCTCGCGACTGCTCAGAG	2571	TTTTTAAGCTTTTATTACGCCCGT TTCCGCCGACCTTC
BamHI- His-FBG	N/A	N/A	2574	TTTTTGGATCCCATCATCATCAGCACTCACTAATAAA G	2575	TTTTTAAGCTTTTATTAGTGAATGG TGAATGAATGAGG
His-FBG	plus	human	2580	TTTTTCTCGAGCATCATCATCAGCACTCACTTGGAC TCC	2570	TTTTTAAGCTTTTATTACGCCCGT TTACGCCGACCCCTC
His-FBG	plus	mouse	2580	TTTTTCTCGAGCATCATCATCAGCACTCACTTGGAC TCC	2571	TTTTTAAGCTTTTATTACGCCCGT TTCCGCCGACCTTC

Figure 23