

Strategy No	Round 1	Round 2	Round 3	biotinylated	No first hits
1	h-IL11	m-IL11	h-IL11	Yes	1
2	h-IL11	h-IL11	h-IL11	Yes	-
3	h-IL11	h-IL11	m-IL11	Yes	-
4	m-IL11	m-IL11	m-IL11	Yes	5
5	m-IL11	h-IL11	m-IL11	Yes	-
6	m-IL11	h-IL11	h-IL11	Yes	-
7	h-IL11	h-IL11	h-IL11	No	11
8	h-IL11	m-IL11	h-IL11	No	14
9	h-IL11	m-IL11	h-IL11	Round 2	17
10	h-IL11	h-IL11	m-IL11	No	19
11	h-IL11	h-IL11	m-IL11	Round 3	5
12	m-IL11	h-IL11	m-IL11	Round 3	10
13	m-IL11	m-IL11	h-IL11	Round 1, 2	6
14	m-IL11	m-IL11	m-IL11	No	36
15	m-IL11	h-IL11	m-IL11	No	15
16	m-IL11	m-IL11	h-IL11	No	36

Figure 1

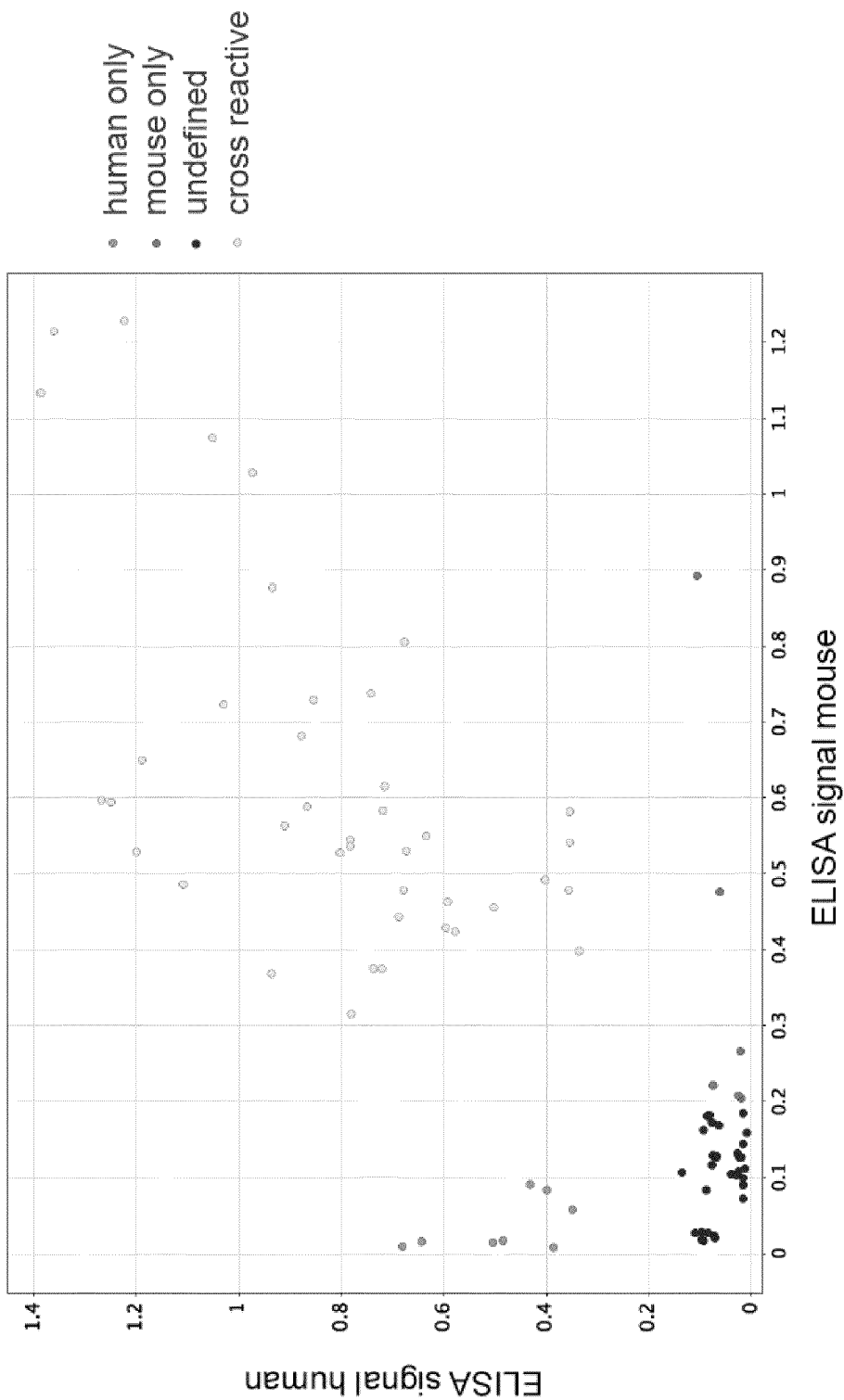


Figure 2

Identical Sequence	Clone ID	Fc-part	Identical Sequence	Clone ID	Fc-part
1	YU33-A2	hlgG1-Fc (IgG)	20	YU45-H8	hlgG1-Fc
2	YU33-B3	hlgG1-Fc (IgG)	21	YU45-F9	hlgG1-Fc
	YU33-H3	hlgG1-Fc (IgG)	22	YU45-H10	hlgG1-Fc
3	YU33-B4	hlgG1-Fc (IgG)	23	YU46-A10	hlgG1-Fc
	YU45-G2	hlgG1-Fc	24	YU45-F2	hlgG1-Fc
	YU45-A3	hlgG1-Fc	25	YU45-H3	hlgG1-Fc
4	YU33-E3	hlgG1-Fc (IgG)	26	YU45-A1	hlgG1-Fc
5	YU33-E6	hlgG1-Fc (IgG)	27	YU45-A8	hlgG1-Fc
6	YU45-C11	hlgG1-Fc		YU45-C6	hlgG1-Fc
	YU45-A10	hlgG1-Fc	28	YU45-B5	hlgG1-Fc
7	YU45-D11	hlgG1-Fc		YU45-A4	hlgG1-Fc
	YU45-F11	hlgG1-Fc	29	YU45-C3	hlgG1-Fc
8	YU45-E11	hlgG1-Fc		YU45-A6	hlgG1-Fc
	YU45-E12	hlgG1-Fc	30	YU45-D1	hlgG1-Fc
9	YU45-H11	hlgG1-Fc	31	YU45-D9	hlgG1-Fc
	YU45-D12	hlgG1-Fc		YU45-D3	hlgG1-Fc
10	YU45-A12	hlgG1-Fc	32	YU45-E5	hlgG1-Fc
	YU45-G10	hlgG1-Fc	33	YU45-G7	hlgG1-Fc
11	YU45-G1	hlgG1-Fc	34	YU45-B4	hlgG1-Fc
12	YU45-B2	hlgG1-Fc	35	YU45-H4	hlgG1-Fc
13	YU45-C2	hlgG1-Fc	36	YU45-B6	hlgG1-Fc
	YU45-A7	hlgG1-Fc	37	YU45-D6	hlgG1-Fc
	YU45-B10	hlgG1-Fc	38	YU45-E7	hlgG1-Fc
14	YU45-D2	hlgG1-Fc	39	YU45-F5	hlgG1-Fc
	YU45-H2	hlgG1-Fc	40	YU45-H7	hlgG1-Fc
	YU45-C7	hlgG1-Fc		YU46-B5	hlgG1-Fc
	YU45-F3	hlgG1-Fc	41	YU45-B8	hlgG1-Fc
	YU45-C9	hlgG1-Fc	42	YU45-C1	hlgG1-Fc
	YU45-E1	hlgG1-Fc	43	YU46-G1	hlgG1-Fc
	YU45-E9	hlgG1-Fc	44	YU46-A2	hlgG1-Fc
	YU45-C10	hlgG1-Fc	45	YU46-A8	hlgG1-Fc
	YU45-G3	hlgG1-Fc	46	YU46-B2	hlgG1-Fc
	YU45-H9	hlgG1-Fc	47	YU46-B6	hlgG1-Fc
	YU45-C5	hlgG1-Fc	48	YU46-C1	hlgG1-Fc
	YU45-A2	hlgG1-Fc	49	YU46-D7	hlgG1-Fc
	YU45-A5	hlgG1-Fc	50	YU46-E3	hlgG1-Fc
15	YU45-B3	hlgG1-Fc	51	YU46-E7	hlgG1-Fc
16	YU45-E3	hlgG1-Fc	52	YU46-H8	hlgG1-Fc
17	YU45-C8	hlgG1-Fc	53	YU46-G9	hlgG1-Fc
	YU45-E8	hlgG1-Fc	54	YU46-G8	hlgG1-Fc
18	YU45-F8	hlgG1-Fc	55	YU46-B7	hlgG1-Fc
19	YU45-G8	hlgG1-Fc	56	YU46-D3	hlgG1-Fc
	YU45-H6	hlgG1-Fc			

Figure 3

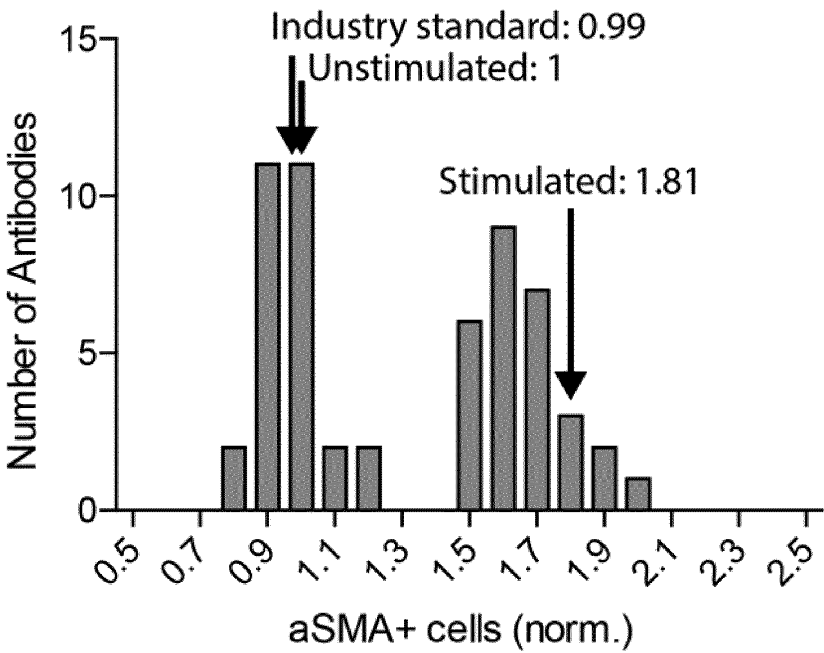


Figure 4A

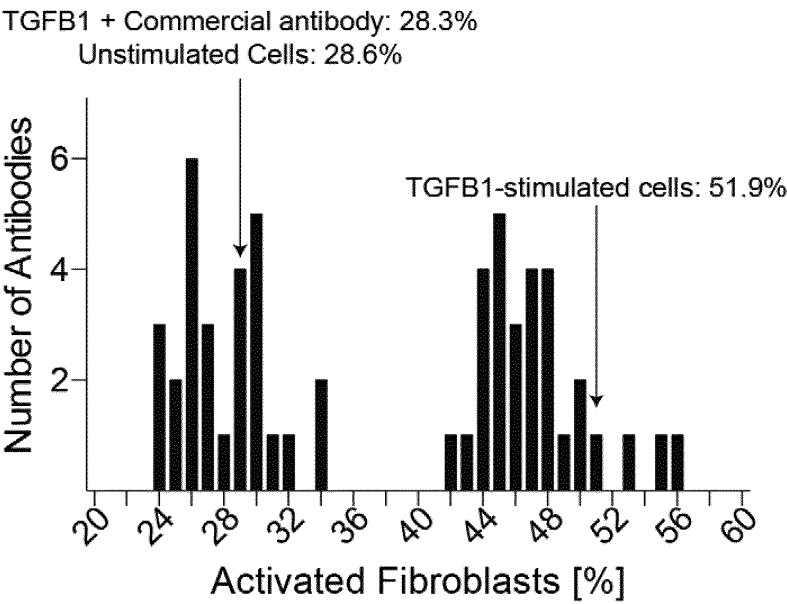


Figure 4B

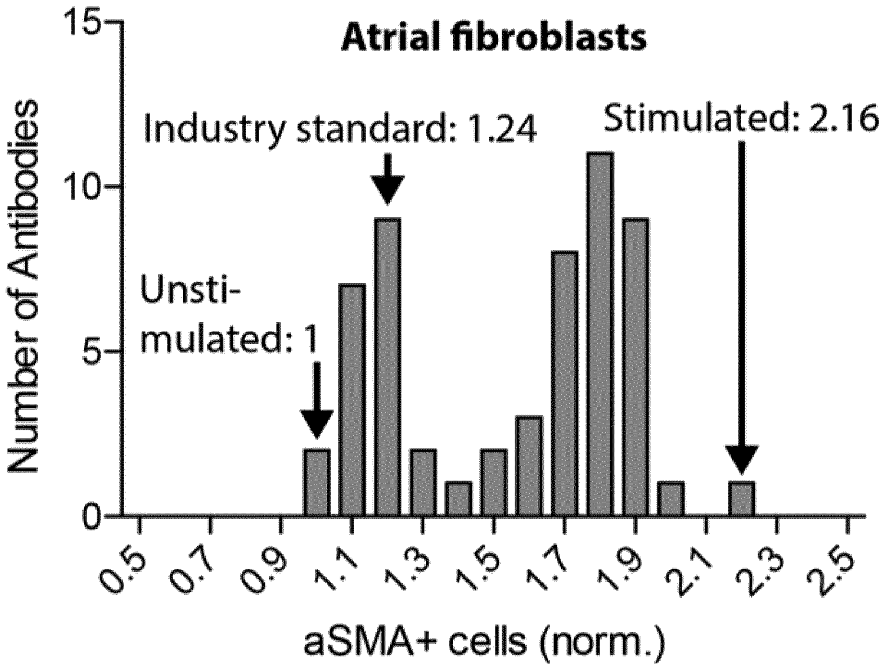


Figure 5A

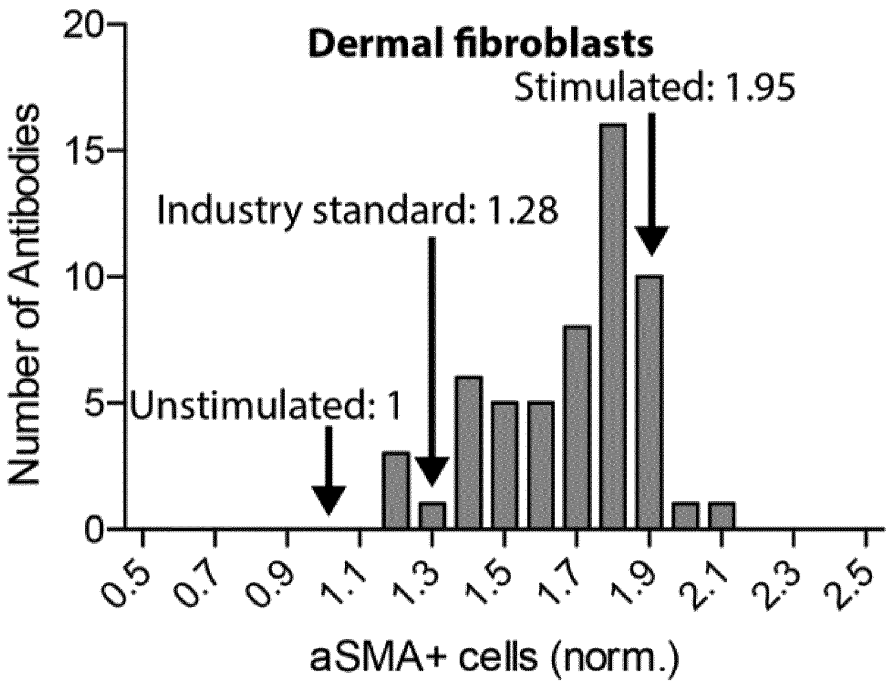


Figure 5B

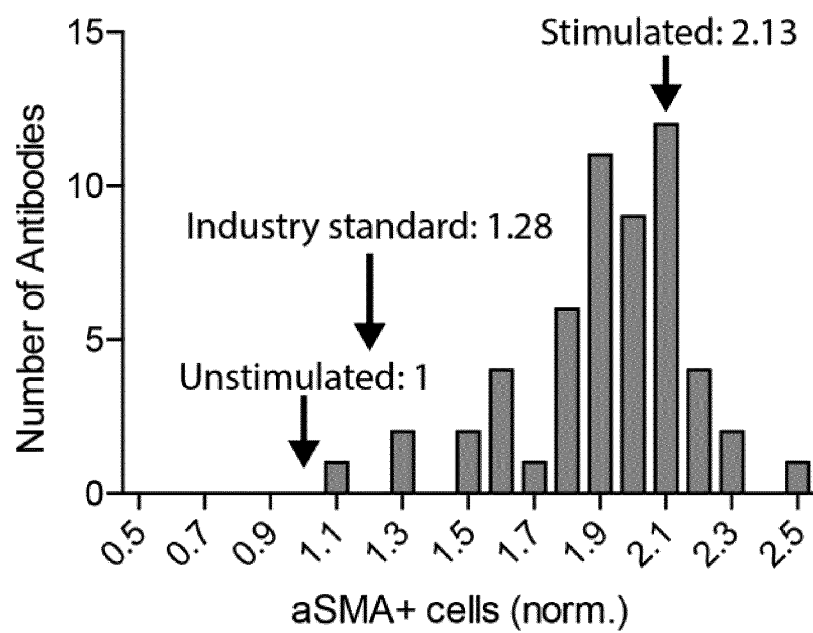
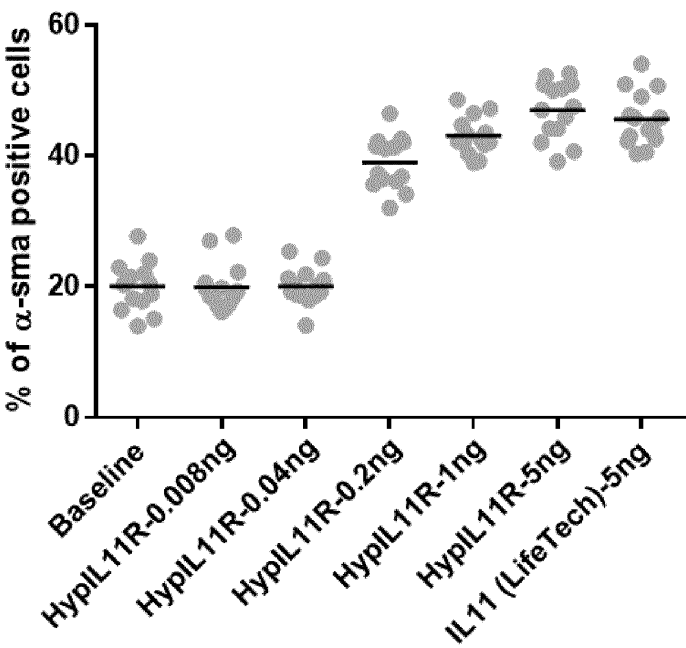


Figure 6

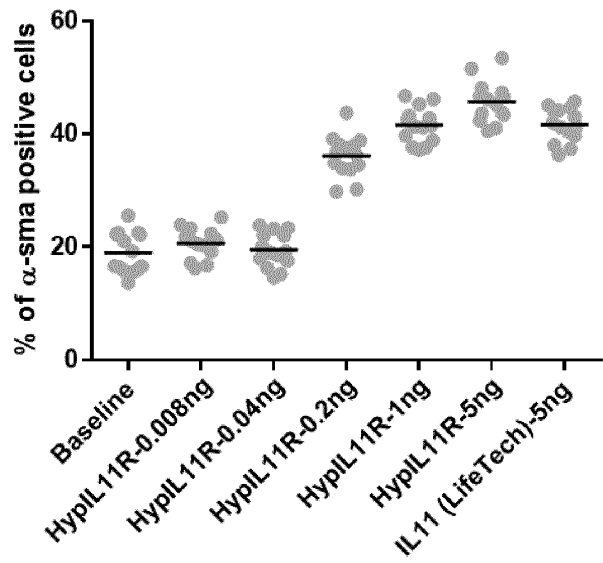
Antibody Candidate	Human IL11 Activated fibroblasts (norm.)	Mouse IL11 Activated atrial fibroblasts (norm.)	Trans IL11 Activated fibroblasts (norm.)	Mouse IL11 Activated dermal fibroblasts (norm.)
-	1	1	1	1
-	1.81	2.16	2.13	1.95
Industry Standard	0.99	1.24	1.28	1.28
1	1.91	1.75	2.16	1.98
2	1.95	1.83	2.09	1.91
3	1.11	1.08	1.14	1.59
4	1.85	1.85	2.13	1.83
5	1.78	1.72	2.13	1.62
6	0.91	1.25	2.26	1.40
7	1.03	1.79	2.18	1.93
8	1.01	1.83	2.05	1.85
9	1.17	1.22	1.71	1.54
10	1.67	1.75	1.28	1.86
11	0.94	1.03	2.61	1.49
12	0.99	1.83	1.83	1.94
13	1.76	1.91	1.86	2.09
14	1.04	1.11	2.04	1.46
15	1.57	1.13	1.90	1.39
16	0.88	1.69	1.58	1.76
17	1.55	1.70	1.46	1.76
18	0.82	1.08	1.85	1.40
19	1.01	1.26	1.77	1.53
20	1.65	1.78	1.47	1.78
21	0.89	1.83	2.06	1.83
22	0.92	1.17	2.02	1.56
23	1.69	1.11	2.27	1.72
24	0.96	1.87	1.29	1.89
25	0.94	1.24	2.04	1.43
26	1.68	1.92	2.50	1.94
27	1.05	1.05	2.15	1.44
28	1.09	2.19	2.12	1.79
29	1.65	1.37	2.10	1.61
30	1.63	1.89	1.89	1.88
31	1.04	1.23	1.76	1.28
32	1.68	2.03	2.00	1.89
33	0.95	1.56	1.94	1.79
34	1.59	1.88	1.94	1.83
35	1.76	1.86	2.06	1.73
36	0.84	1.17	1.99	1.20
37	1.61	1.92	1.82	1.75
38	1.54	1.91	1.98	1.81
39	1.02	1.47	1.63	1.82
40	1.18	1.78	1.97	1.85
41	1.57	1.78	1.87	1.69
42	0.85	1.21	2.04	1.19
43	1.54	1.78	2.06	1.72
44	1.57	1.71	2.13	1.61
45	1.03	1.18	1.60	1.79
46	1.67	1.72	2.11	1.77
47	0.89	1.81	1.90	1.76
48	1.50	1.21	1.84	1.41
49	1.60	1.70	1.89	1.70
50	0.86	1.81	1.83	1.82
51	1.55	1.46	2.09	1.66
52	1.62	1.06	2.09	1.23
53	1.47	1.57	1.90	1.68
54	0.90	1.23	1.57	1.82
55	1.56	1.61	2.16	1.80
56	0.91	1.13	1.87	1.47

Figure 7



Pa203

Figure 8A



Pa204

Figure 8B

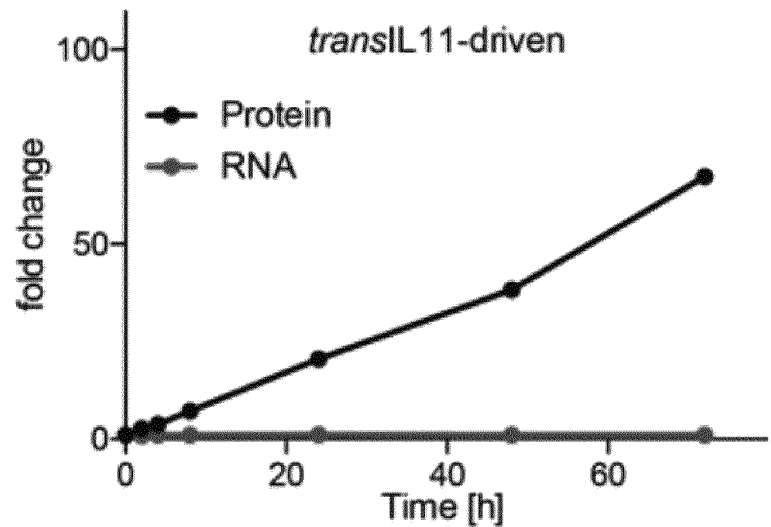


Figure 9

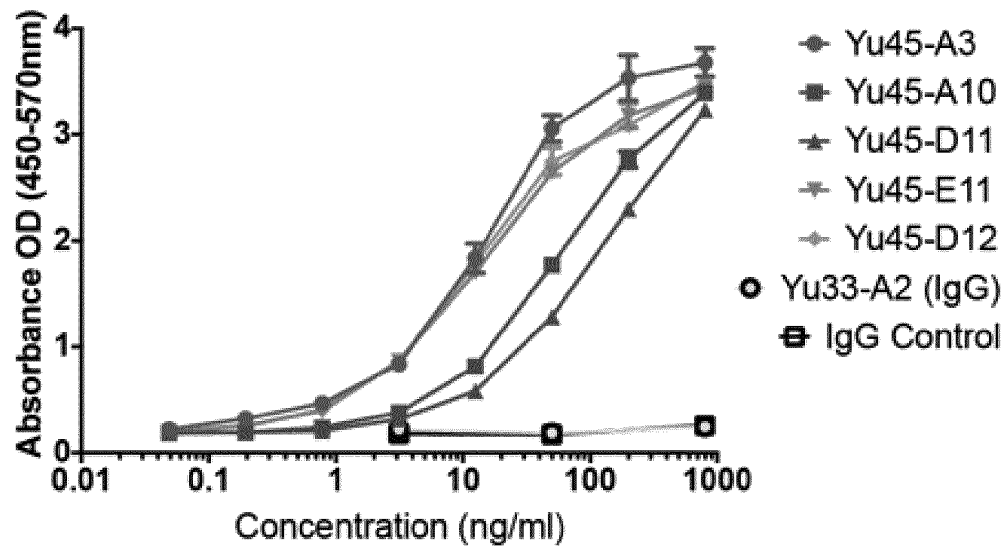


Figure 10A

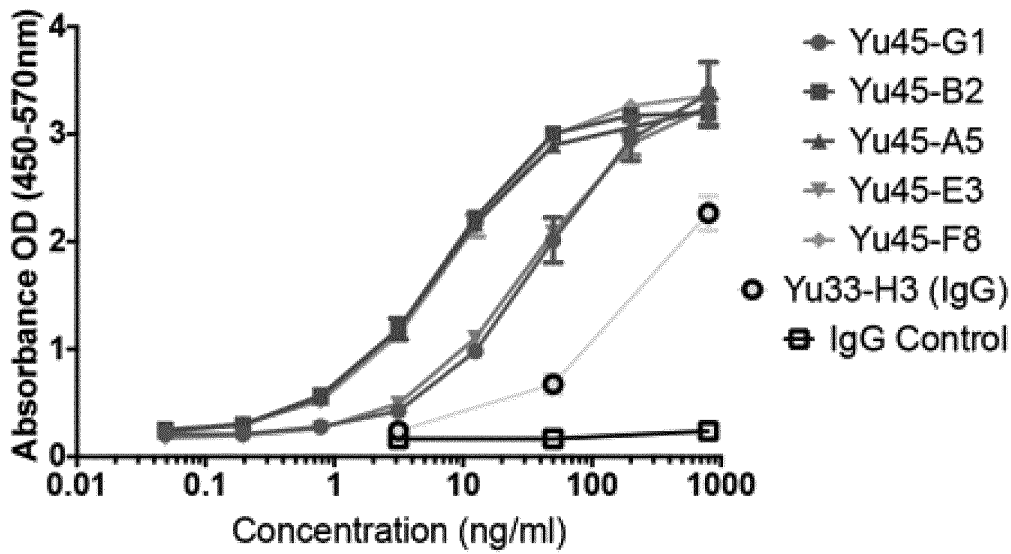


Figure 10B

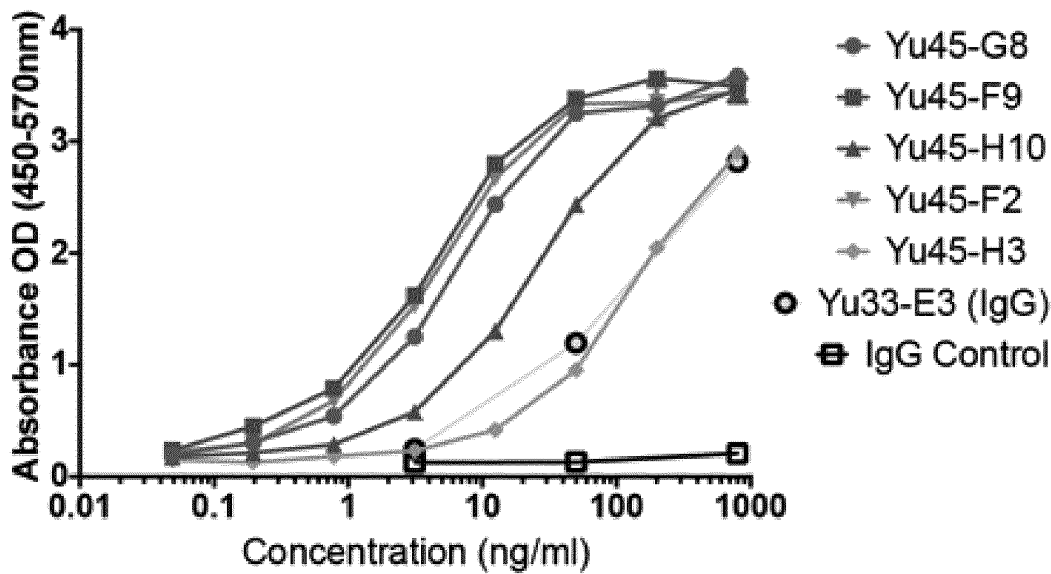


Figure 10C

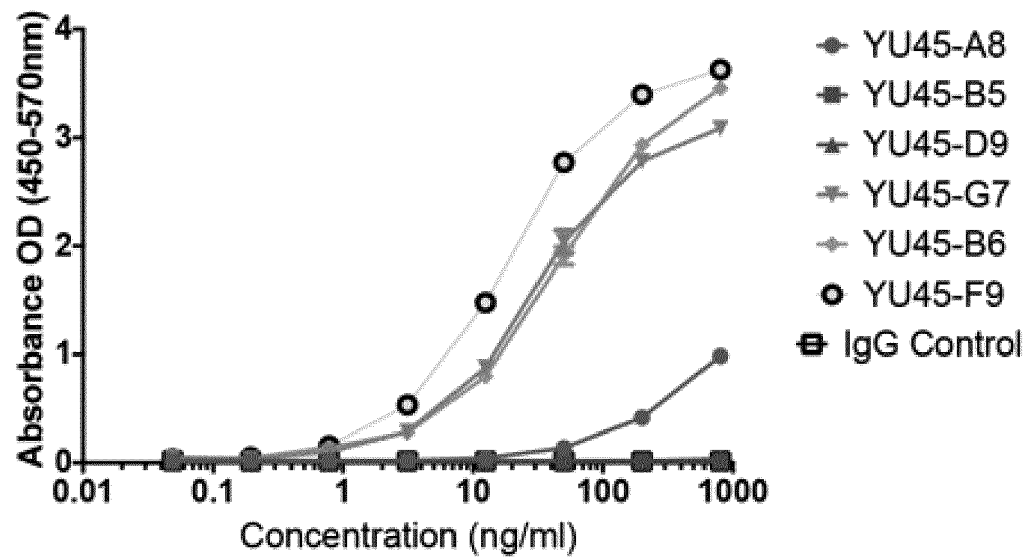


Figure 10D

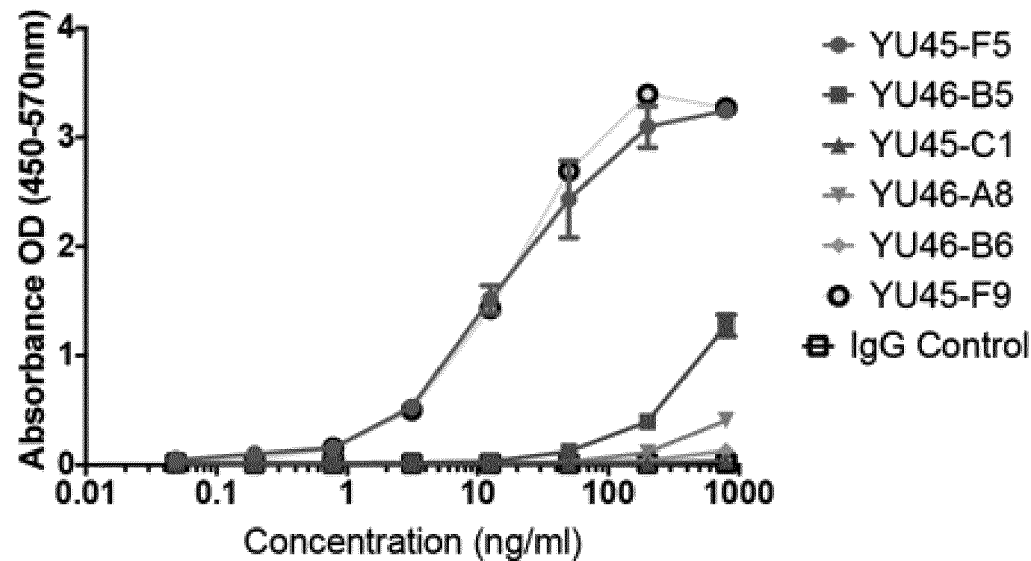


Figure 10E

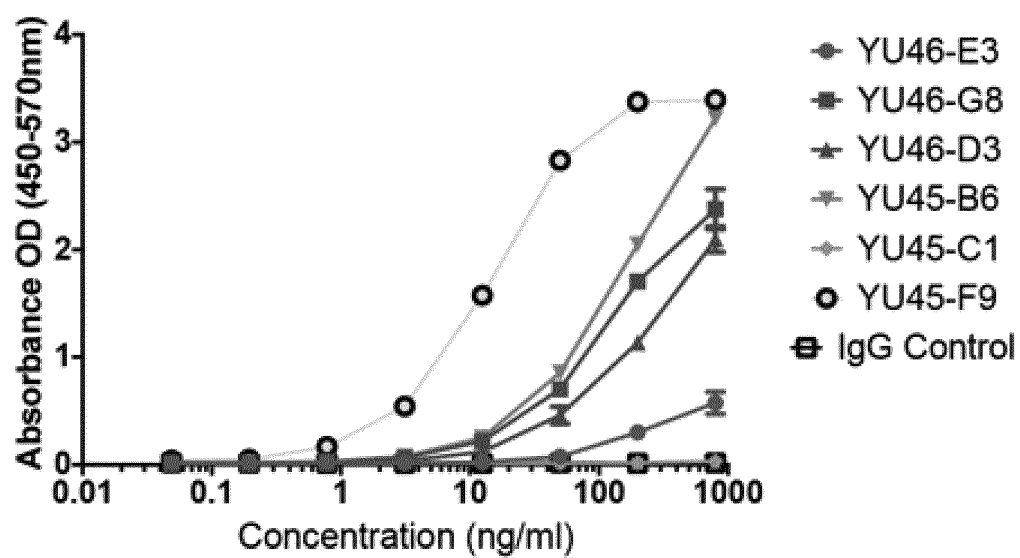
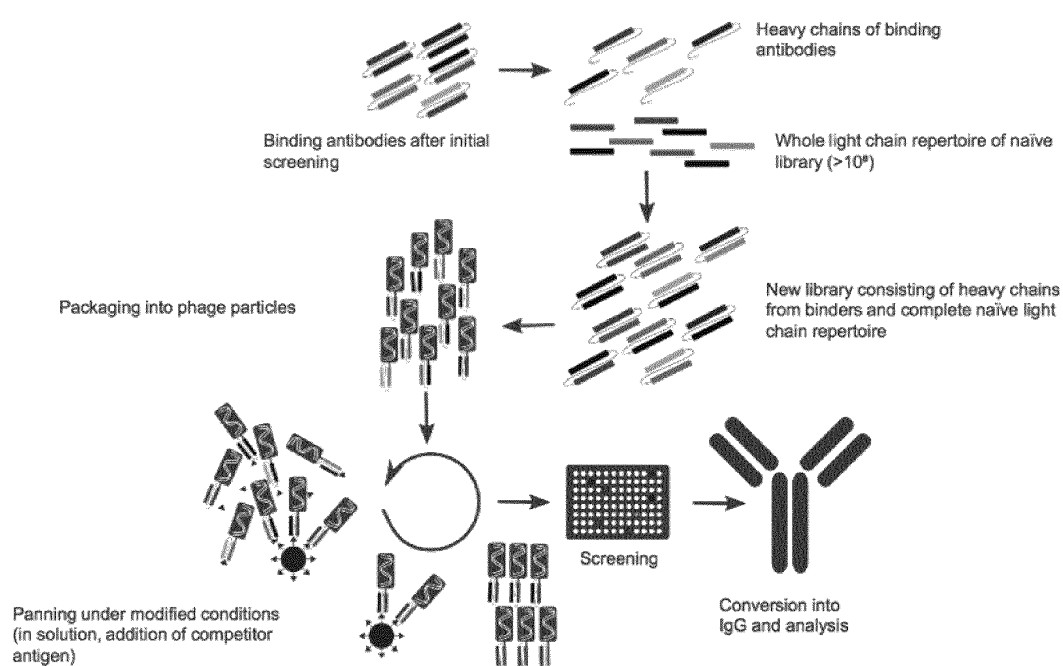


Figure 10F

Sequence Group	Clone	Format	EC50
3	YU45-A3	hlgG-Fc	14.22
6	YU45-A10	hlgG-Fc	67.67
7	YU45-D11	hlgG-Fc	186.5
8	YU45-E11	hlgG-Fc	15.66
9	YU45-D12	hlgG-Fc	14.55
11	YU45-G1	hlgG-Fc	42.75
12	YU45-B2	hlgG-Fc	6.409
14	YU45-A5	hlgG-Fc	6.543
16	YU45-E3	hlgG-Fc	33.19
18	YU45-F8	hlgG-Fc	7.786
19	YU45-G8	hlgG-Fc	6.288
21	YU45-F9	hlgG-Fc	4.016
22	YU45-H10	hlgG-Fc	24.8
24	YU45-F2	hlgG-Fc	4.239
25	YU45-H3	hlgG-Fc	126.1
27	YU45-A8	hlgG-Fc	710
31	YU45-D9	hlgG-Fc	709.8
33	YU45-G7	hlgG-Fc	10.15
36	YU45-B6	hlgG-Fc	4984
39	YU45-F5	hlgG-Fc	10.07
40	YU46-B5	hlgG-Fc	234.1
42	YU45-C1	hlgG-Fc	217
45	YU46-A8	hlgG-Fc	351.2
47	YU46-B6	hlgG-Fc	222.3
50	YU46-E3	hlgG-Fc	706.7
54	YU46-G8	hlgG-Fc	32.27
56	YU46-D3	hlgG-Fc	654.8
3	Yu33-B4	hlgG-Fc	197.6

Figure 11

**Figure 12**

ID	Clone
A1	BSN-1H2
A2	BSN-1H7
A3	BSN-2E1
A4	BSN-2F5
A5	BSN-2G6
A6	BSN-3C6
A7	BSN-3C11
A8	BSN-5A6
A9	BSN-5B8
A10	BSN-5F6
A11	BSN-6F3
A12	BSN-7D4
A13	BSN-7E4
A14	BSN-7F9
A15	BSN-8C4
A16	BSN-8H11

Figure 13

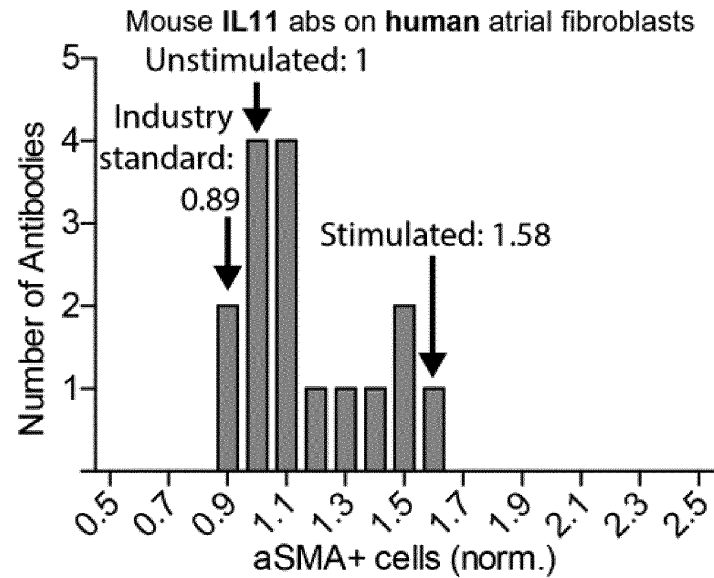


Figure 14

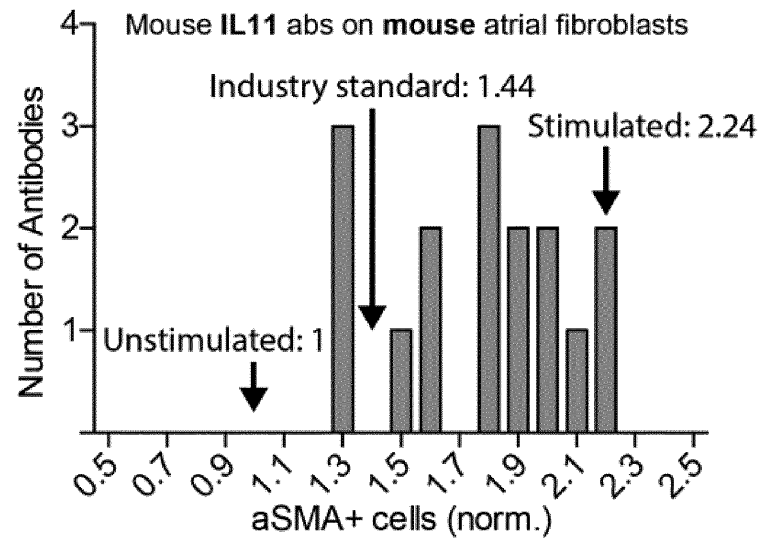


Figure 15

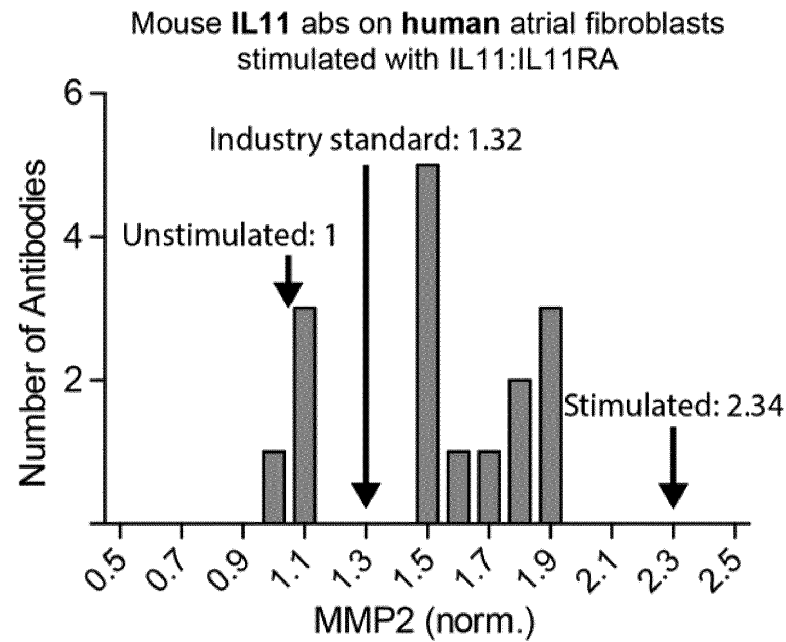


Figure 16

Antibody Candidate	Human IL11 activated fibroblasts (norm.)	Mouse IL11 activated fibroblasts (norm.)	Trans IL11 MMP2 (norm.)
Unstimulated	1	1	1
Stimulated	1.58	2.24	2.34
Industry Standard	0.89	1.44	1.32
A1	1.11	1.63	1.45
A2	1.28	2.17	1.55
A3	1.16	1.30	1.57
A4	1.41	2.14	1.78
A5	0.98	1.28	1.11
A6	0.92	1.31	1.09
A7	0.88	2.24	1.51
A8	1.05	1.49	1.88
A9	1.00	1.91	1.05
A10	1.52	1.80	1.52
A11	1.09	1.99	1.91
A12	1.12	1.82	1.07
A13	1.63	1.99	1.53
A14	1.04	1.89	1.93
A15	1.53	1.64	1.79
A16	1.08	1.82	1.66

Figure 17

Hybridoma supernatants incubated on cells transfected with pB1-IL11-hum.FL flow cytometry (Attunes)				
Results of subcloning				
No	Clone	GMFI	% positive	isotype
1	BSN-1H2	197496	157%	IgG1/kappa
2	BSN-1H7	247434	197%	IgG2a&IgG2c/kappa
3	BSN-2E1	206192	164%	IgG1/kappa
4	BSN-2F5	238332	190%	IgG1/kappa
5	BSN-2G6	28568	23%	IgG2b/kappa
6	BSN-3C6	221636	176%	IgG1/kappa
7	BSN-3C11	1687	1%	n.d. /kappa
8	BSN-5A6	182487	145%	IgG1/kappa
9	BSN-5B8	236341	188%	IgG1/kappa
10	BSN-5F6	199029	158%	IgG1/kappa
11	BSN-6F3	156008	124%	IgG2a&IgG2c/kappa
12	BSN-7D4	220736	176%	IgG2a&IgG2c/kappa
13	BSN-7E4	263377	209%	IgG1/kappa
14	BSN-7F9	12798	10%	IgG1/kappa
15	BSN-8C4	275552	219%	IgG1/kappa
16	BSN-8H11	238663	190%	IgG2b/kappa
	positive control	125733	100%	
	negative control	1028	1%	

Figure 18A

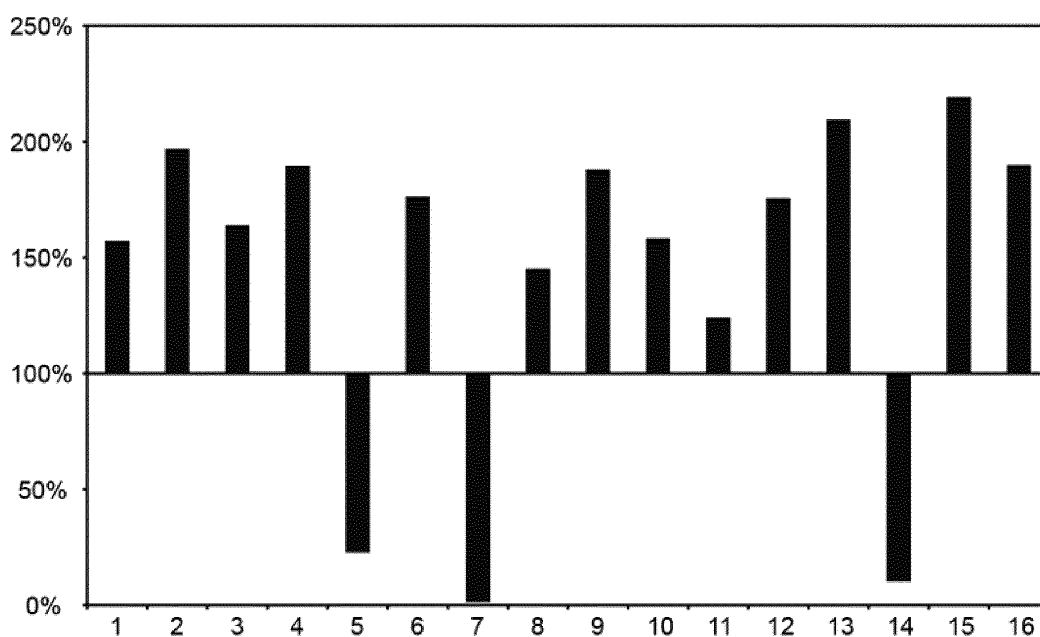


Figure 18B

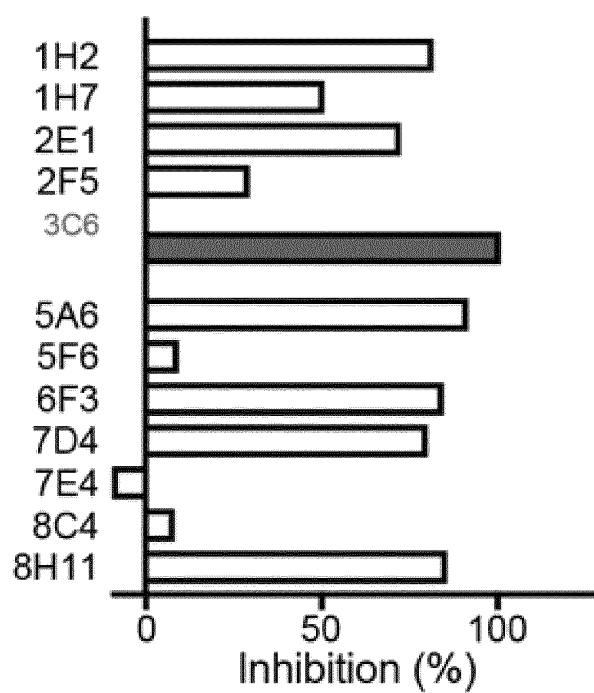


Figure 18C

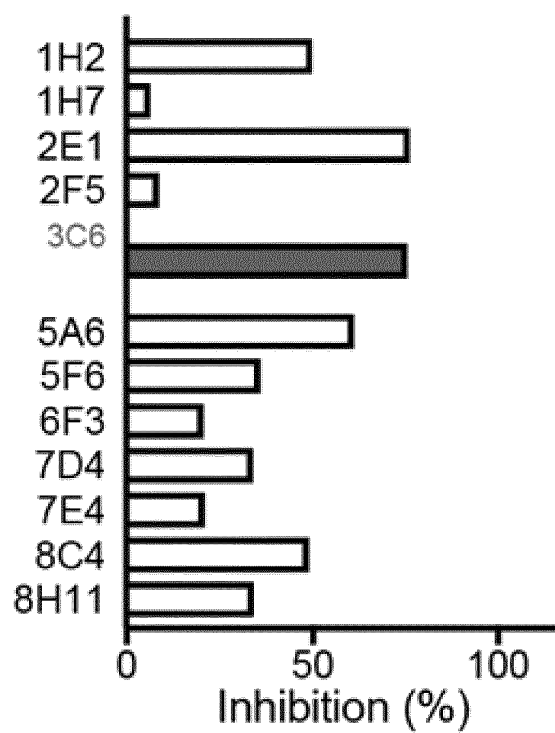


Figure 18D

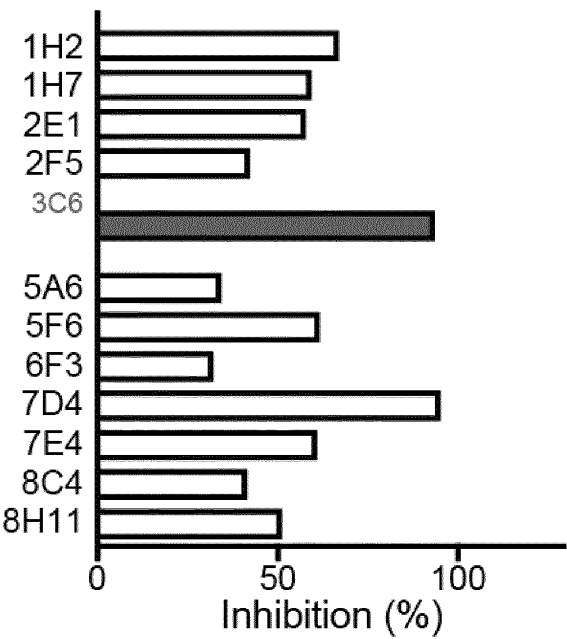


Figure 18E

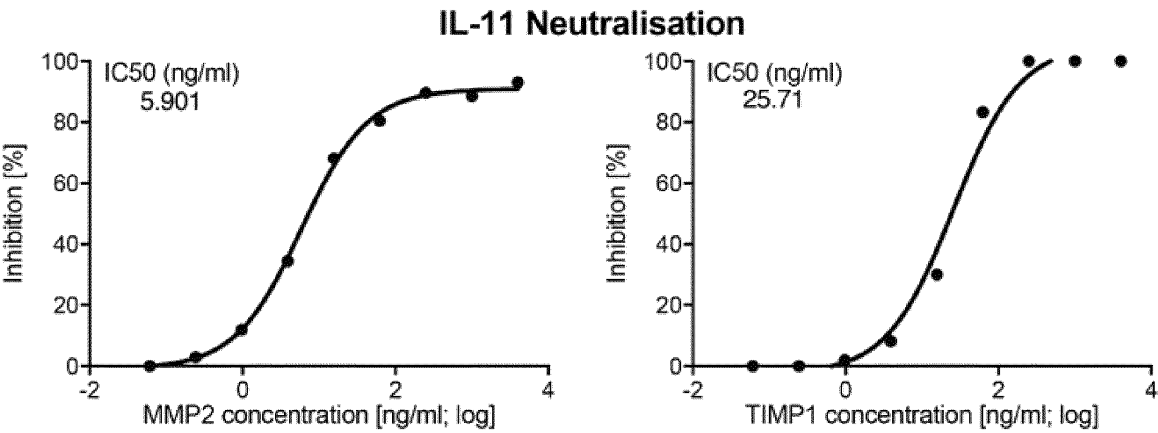


Figure 18F

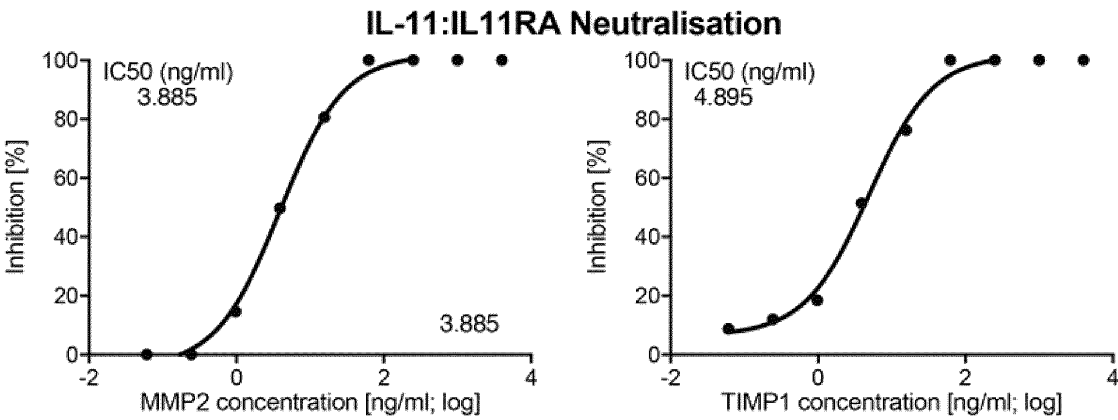


Figure 18G

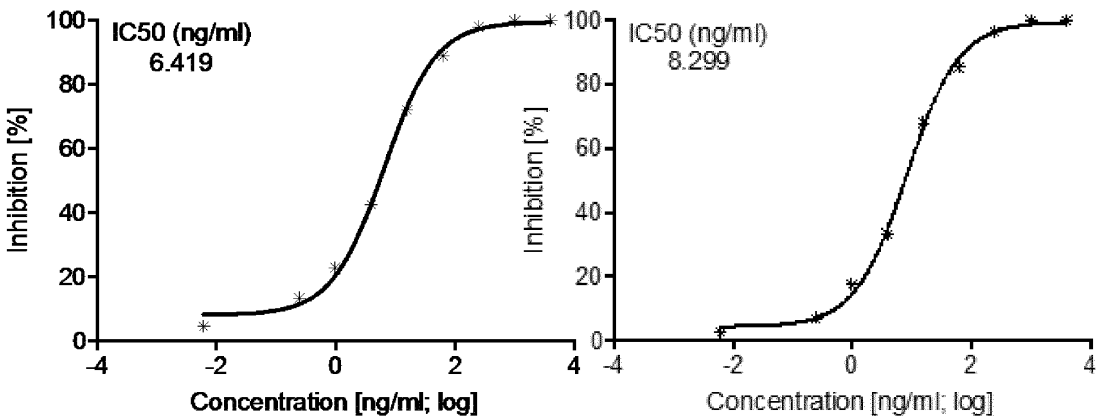


Figure 18H

Strategy No	Round 1	Round 2	soluble competition with	No of first hits (lambda sublibrary)	No of first hits (kappa sublibrary)
1	h-IL11	h-IL11	h-IL11	27	14
2	m-IL11	m-IL11	m-IL11	103	36
3	h-IL11	m-IL11	h-IL11/m-IL11	11	21

Figure 19

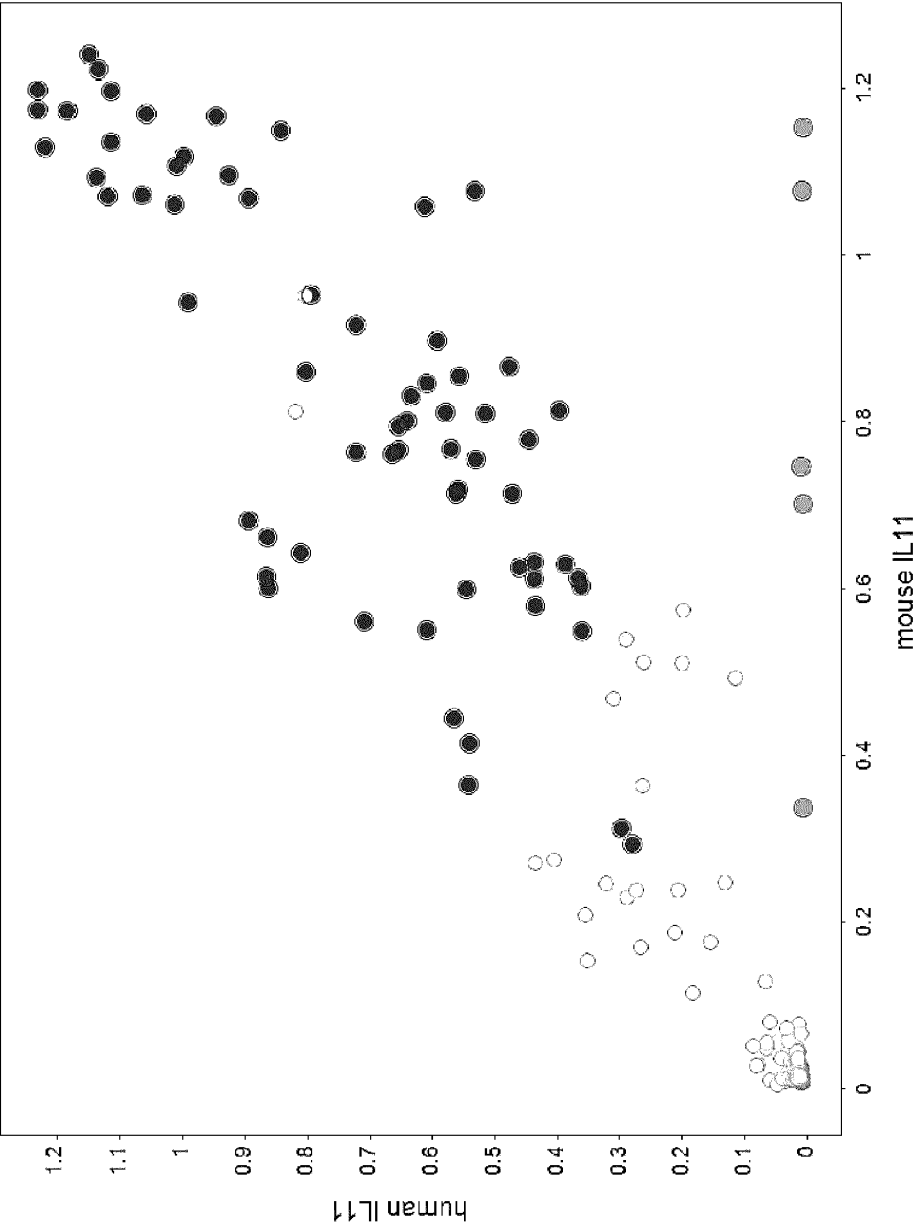


Figure 20

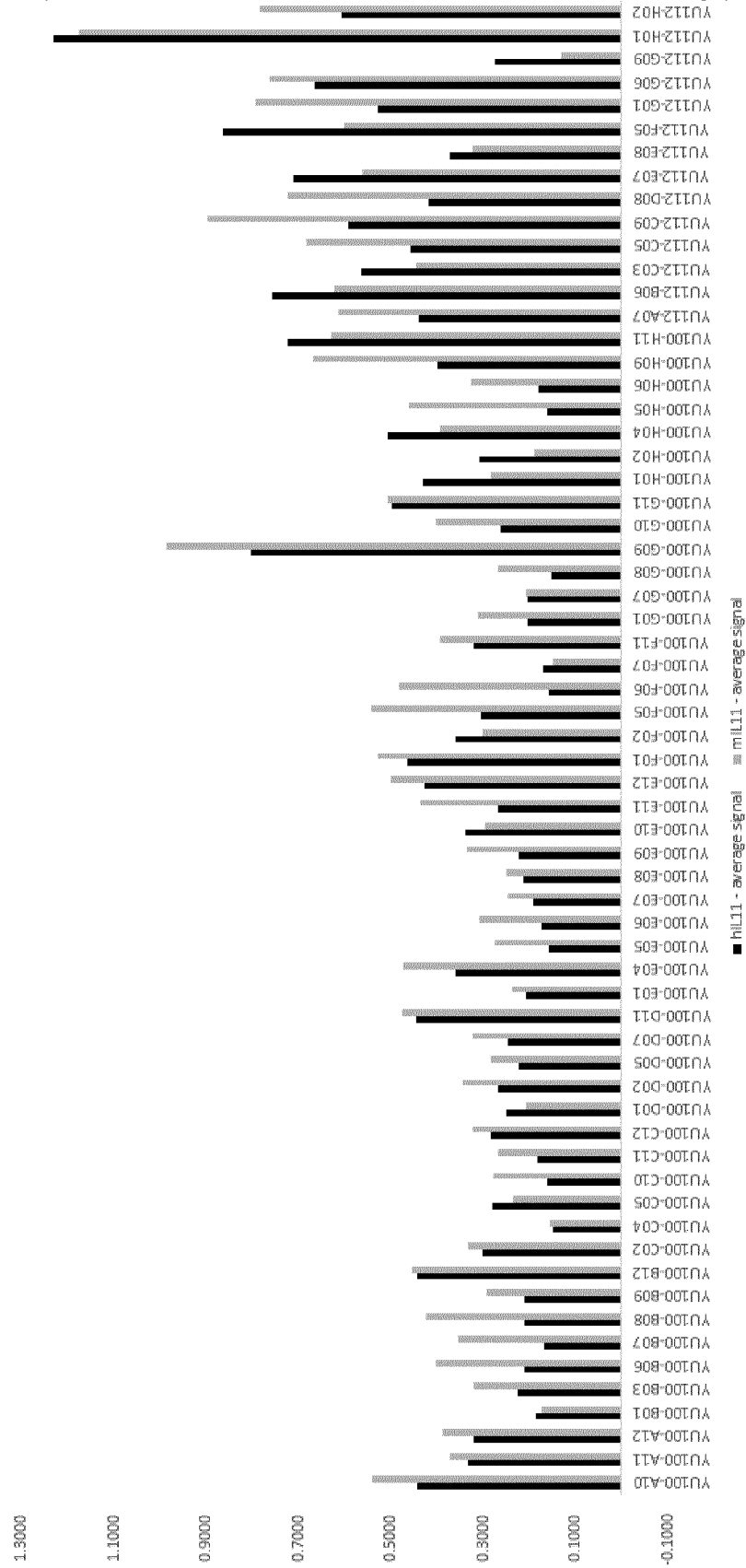


Figure 21A

Clone	hIL11 - average signal	mIL11 - average signal	Clone	hIL11 - average signal	mIL11 - average signal
YU100-A10	0.4430	0.5400	YU100-F07	0.1720	0.1480
YU100-A11	0.3328	0.3716	YU100-F11	0.3190	0.3950
YU100-A12	0.3200	0.3883	YU100-G01	0.2050	0.3100
YU100-B01	0.1870	0.1750	YU100-G07	0.2030	0.2060
YU100-B03	0.2270	0.3210	YU100-G08	0.1530	0.2700
YU100-B06	0.2090	0.4040	YU100-G09	0.8023	0.9846
YU100-B07	0.1670	0.3540	YU100-G10	0.2620	0.4040
YU100-B08	0.2090	0.4230	YU100-G11	0.4980	0.5070
YU100-B09	0.2100	0.2930	YU100-H01	0.4300	0.2830
YU100-B12	0.4430	0.4540	YU100-H02	0.3090	0.1880
YU100-C02	0.3010	0.3330	YU100-H04	0.5080	0.3930
YU100-C04	0.1480	0.1550	YU100-H05	0.1630	0.4610
YU100-C05	0.2810	0.2350	YU100-H06	0.1810	0.3280
YU100-C10	0.1610	0.2770	YU100-H09	0.4000	0.6680
YU100-C11	0.1830	0.2670	YU100-H11	0.7240	0.6290
YU100-C12	0.2829	0.3226	YU112-A07	0.4380	0.6120
YU100-D01	0.2510	0.2060	YU112-B06	0.7563	0.6217
YU100-D02	0.2680	0.3460	YU112-C03	0.5660	0.4450
YU100-D05	0.2230	0.2840	YU112-C05	0.4576	0.6850
YU100-D07	0.2460	0.3220	YU112-C09	0.5930	0.8980
YU100-D11	0.4470	0.4750	YU112-D08	0.4180	0.7230
YU100-E01	0.2070	0.2380	YU112-E07	0.7100	0.5610
YU100-E04	0.3600	0.4720	YU112-E08	0.3733	0.3233
YU100-E05	0.1600	0.2750	YU112-F05	0.8630	0.6010
YU100-E06	0.1730	0.3090	YU112-G01	0.5280	0.7937
YU100-E07	0.1930	0.2470	YU112-G06	0.6640	0.7620
YU100-E08	0.2140	0.2510	YU112-G09	0.2760	0.1310
YU100-E09	0.2240	0.3350	YU112-H01	1.2290	1.1750
YU100-E10	0.3380	0.2970	YU112-H02	0.6060	0.7850
YU100-E11	0.2675	0.4350			
YU100-E12	0.4260	0.5000			
YU100-F01	0.4640	0.5280			
YU100-F02	0.3610	0.3030			
YU100-F05	0.3040	0.5420			
YU100-F06	0.1600	0.4810			

Figure 21B

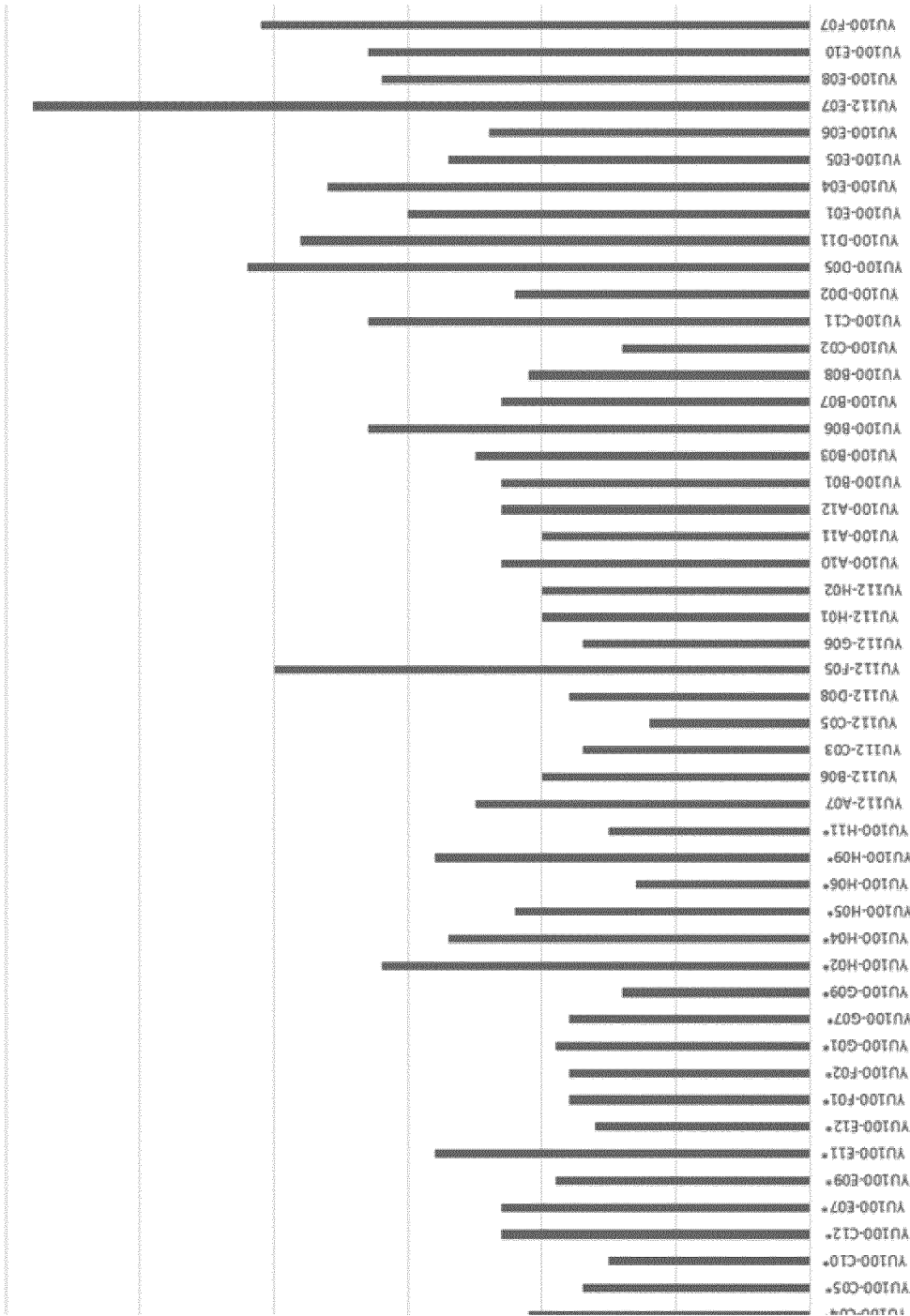


Figure 22

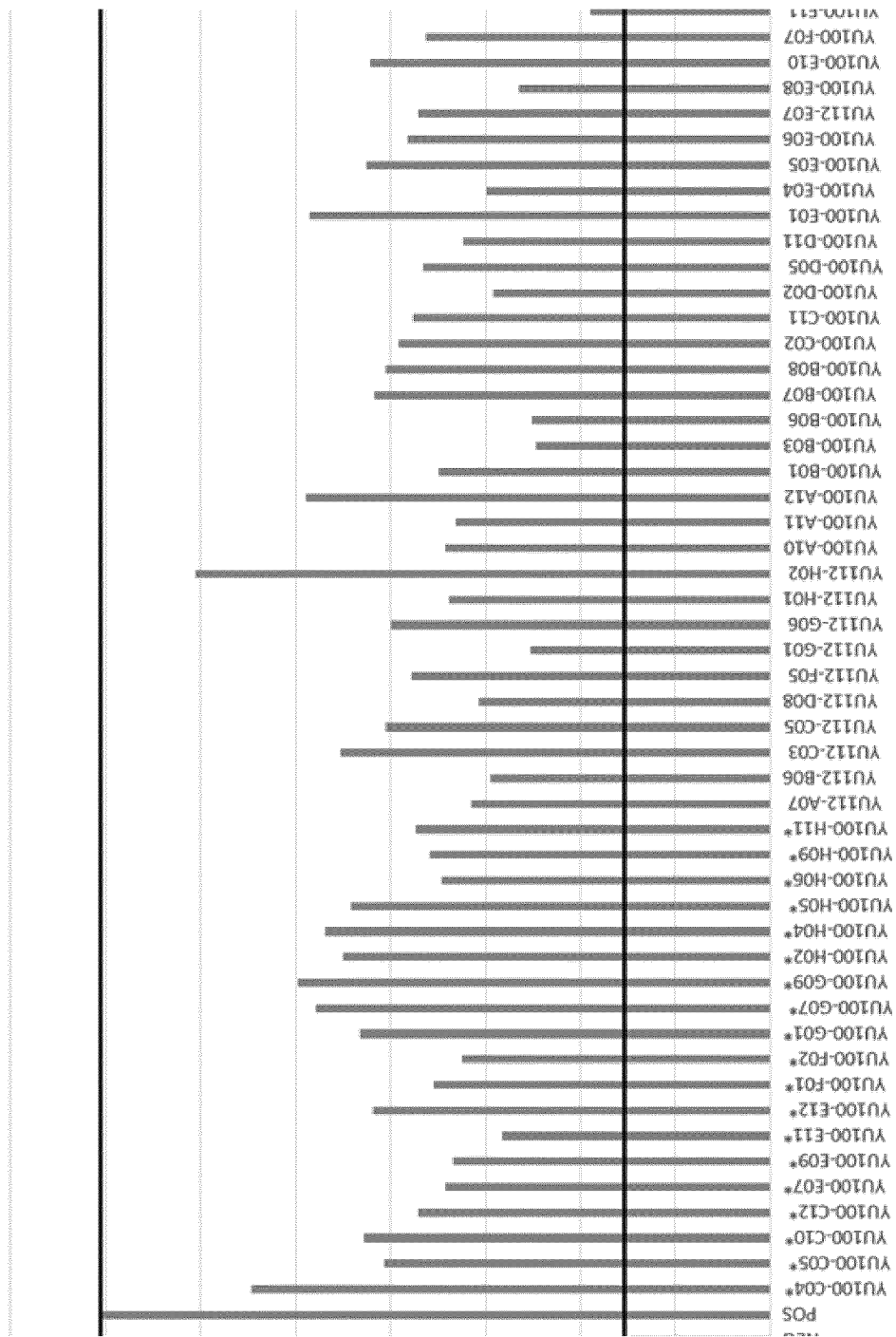


Figure 23A

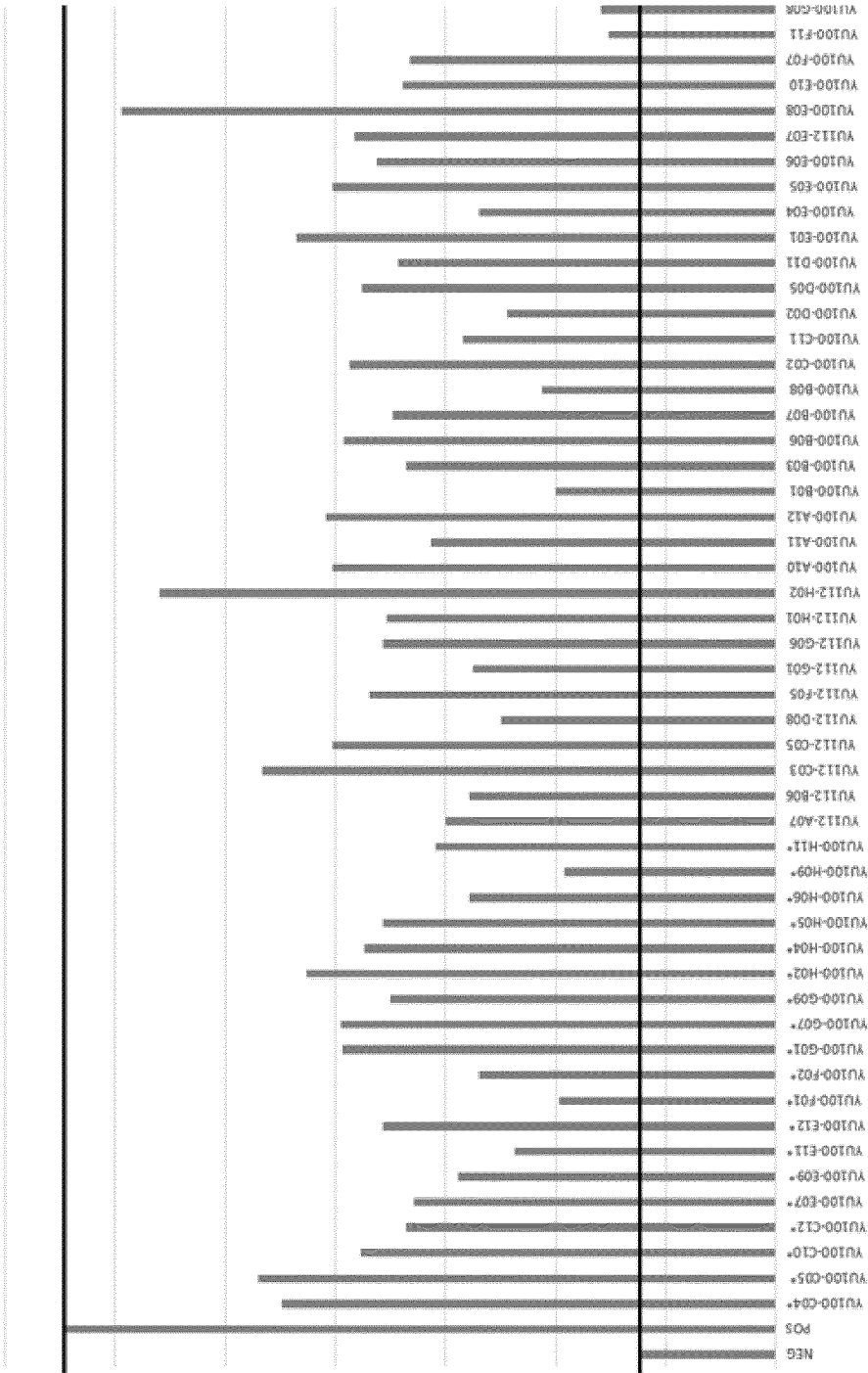


Figure 23B

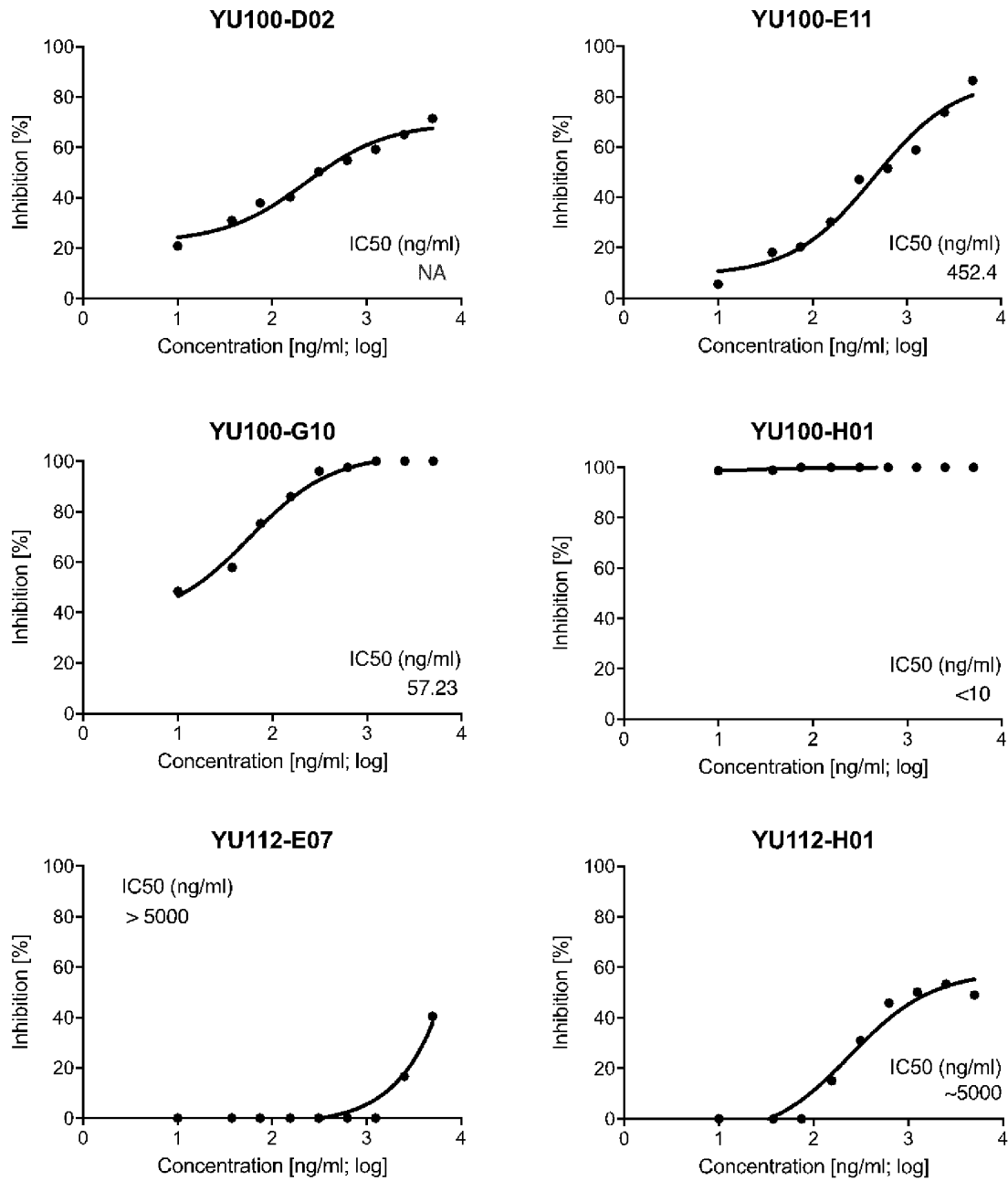


Figure 23C

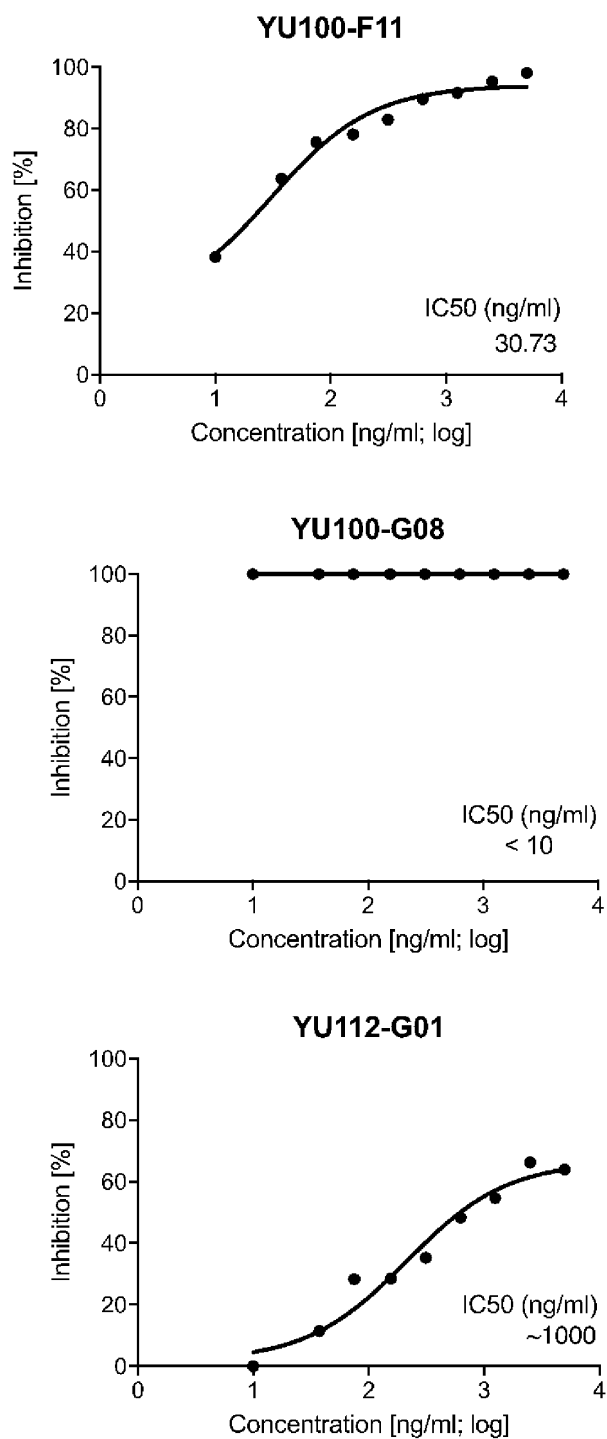


Figure 23C (continued)

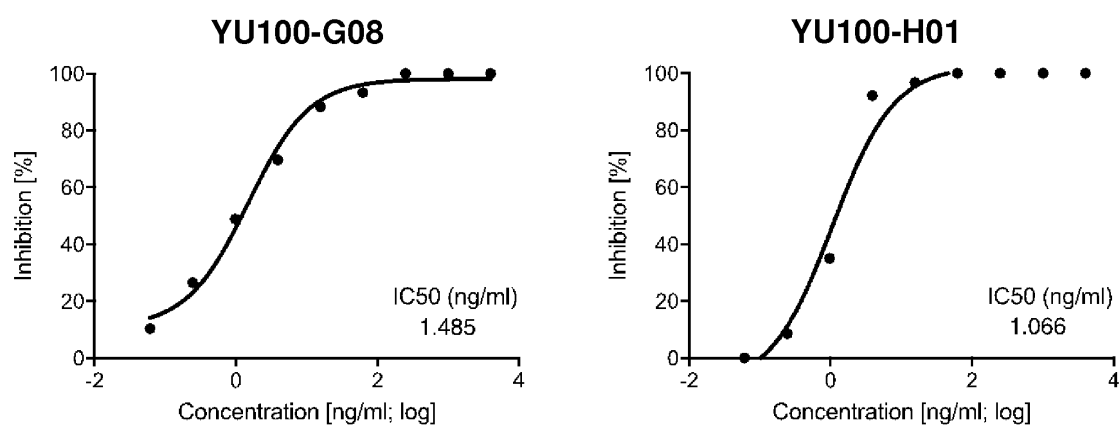


Figure 23D

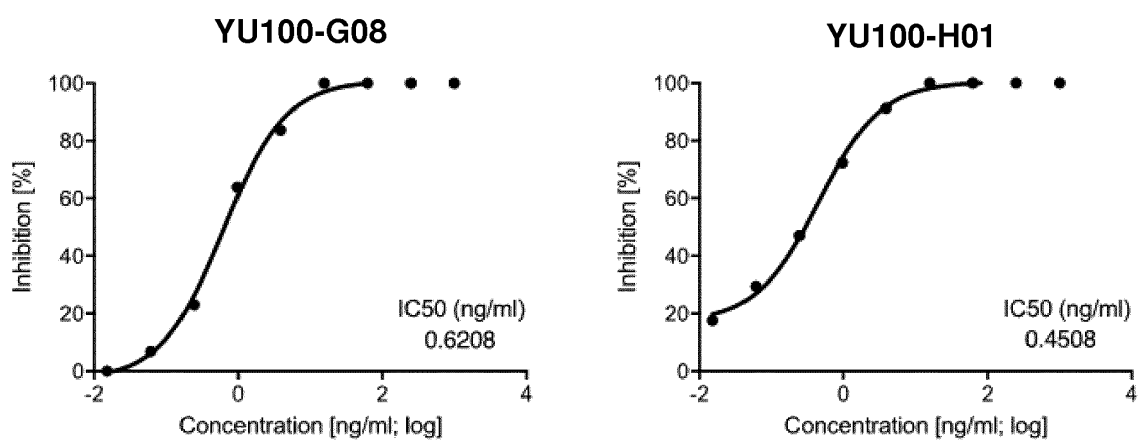


Figure 23E

	Affinity <i>EC50 (ng/ml)</i>	MMP2 production (ng/ml) <i>(Experiment 1)</i>	MMP2 production (ng/ml) <i>(Experiment 2)</i>
No TGFB1, IgG1 control (NEG)	-	42.7	36.2
+ TGFB1, IgG1 control (POS)	-	70.2	62.3
YU100-C04*	21	62.3	52.5
YU100-C05*	17	55.3	53.5
YU100-C10*	15	56.4	48.9
YU100-C12*	23	53.5	46.8
YU100-E07*	23	52.1	46.5
YU100-E09*	19	51.7	44.4
YU100-E11*	28	49.1	41.9
YU100-E12*	16	56.0	47.9
YU100-F01*	18	52.8	39.9
YU100-F02*	18	51.2	43.5
YU100-G01*	19	56.6	49.7
YU100-G07*	18	59.0	49.7
YU100-G09*	14	59.9	47.5
YU100-H02*	32	57.5	51.3
YU100-H04*	27	58.5	48.7
YU100-H05*	22	57.1	47.8
YU100-H06*	13	52.3	43.9
YU100-H09*	28	52.9	39.6
YU100-H11*	15	53.7	45.5
YU112-A07	25	50.7	45.0
YU112-B06	20	49.7	43.9
YU112-C03	17	57.6	53.3
YU112-C05	12	55.2	50.1
YU112-D08	18	50.3	42.5
YU112-F05	40	53.9	48.5
YU112-G01	N.D.	47.6	43.8
YU112-G06	17	55.0	47.8
YU112-H01	20	51.9	47.7
YU112-H02	20	65.3	58.0
YU100-A10	23	52.1	50.1
YU100-A11	20	51.6	45.7
YU100-A12	23	59.5	50.4
YU100-B01	23	52.5	40.0
YU100-B03	25	47.3	46.8
YU100-B06	33	47.6	49.6
YU100-B07	23	55.9	47.4
YU100-B08	21	55.3	40.6
YU100-C02	14	54.6	49.4
YU100-C11	33	53.8	44.2
YU100-D02	22	49.6	42.2
YU100-D05	42	53.3	48.8
YU100-D11	38	51.2	47.2
YU100-E01	30	59.3	51.8
YU100-E04	36	50.0	43.5
YU100-E05	27	56.3	50.2
YU100-E06	24	54.1	48.2
YU112-E07	58	53.5	49.1
YU100-E08	32	48.2	59.7
YU100-E10	33	56.1	47.0
YU100-F07	41	53.1	46.6
YU100-F11	27	44.5	37.6
YU100-G08	28	42.3	38.0
YU100-G10	34	54.0	45.4
YU100-H01	53	48.3	42.2

Figure 24

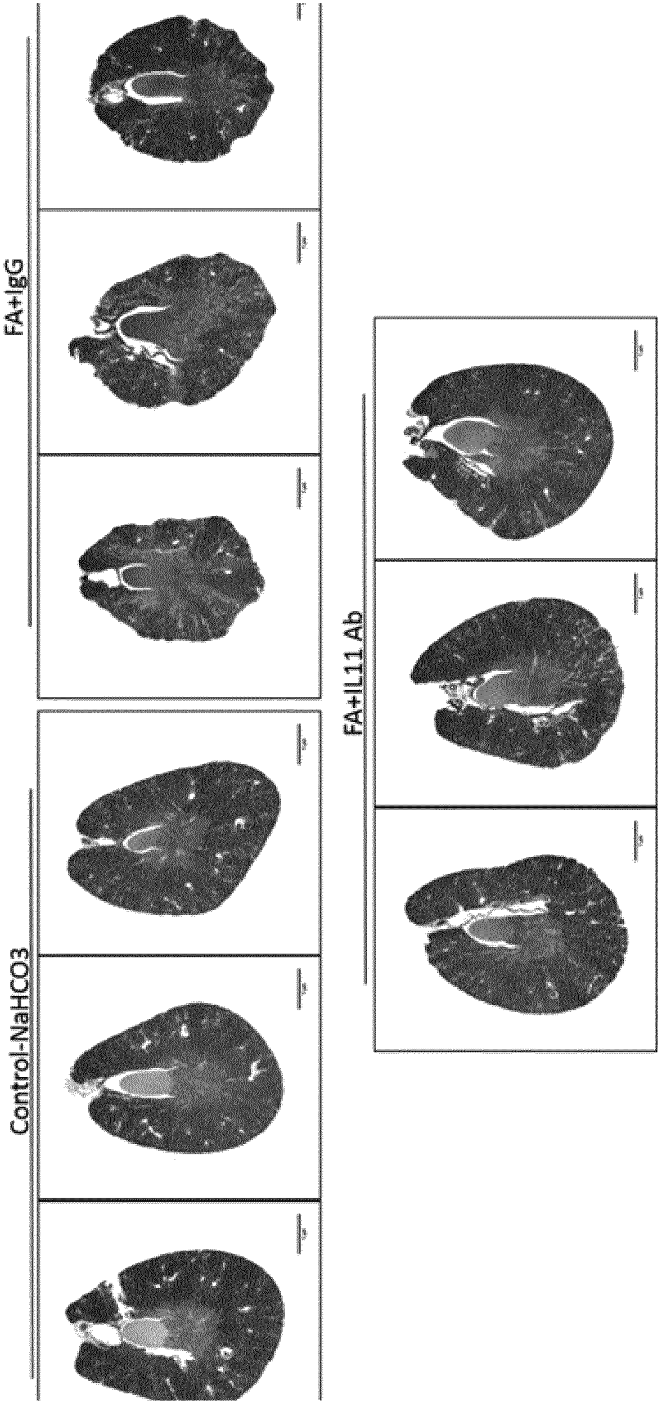


Figure 25A

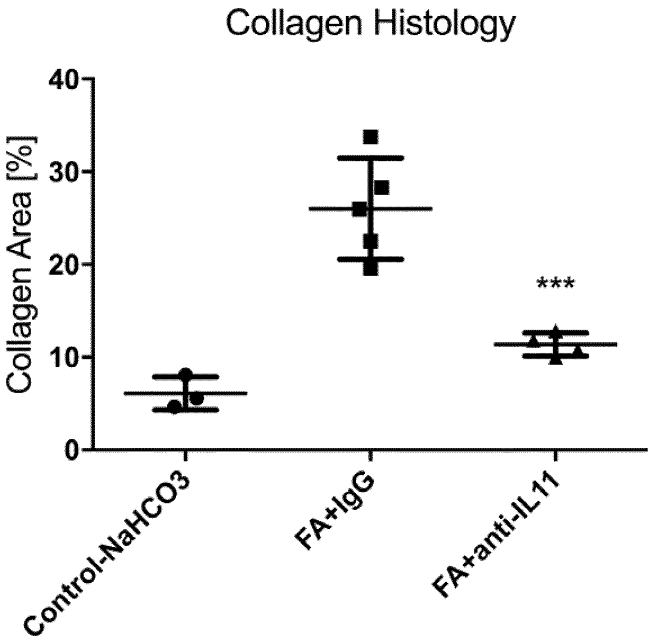


Figure 25B

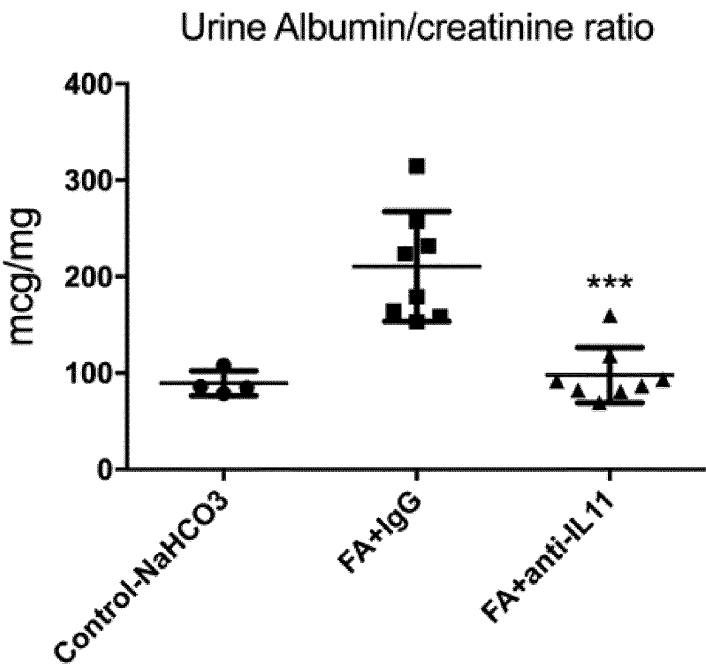


Figure 26

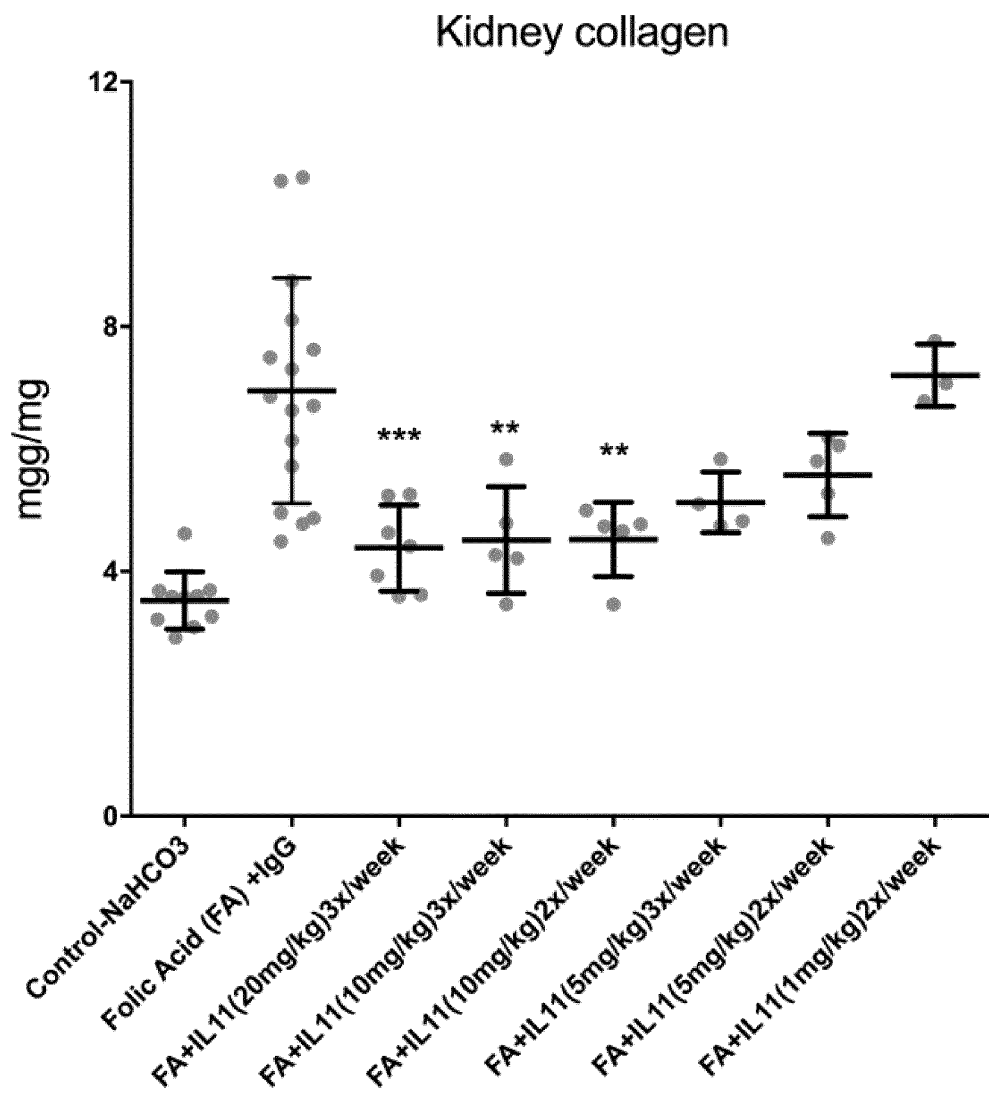


Figure 27A

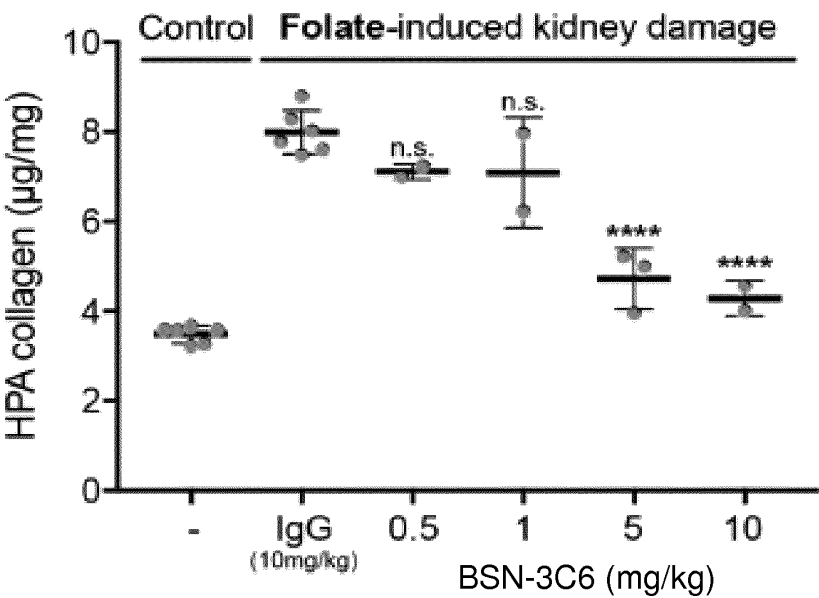


Figure 27B

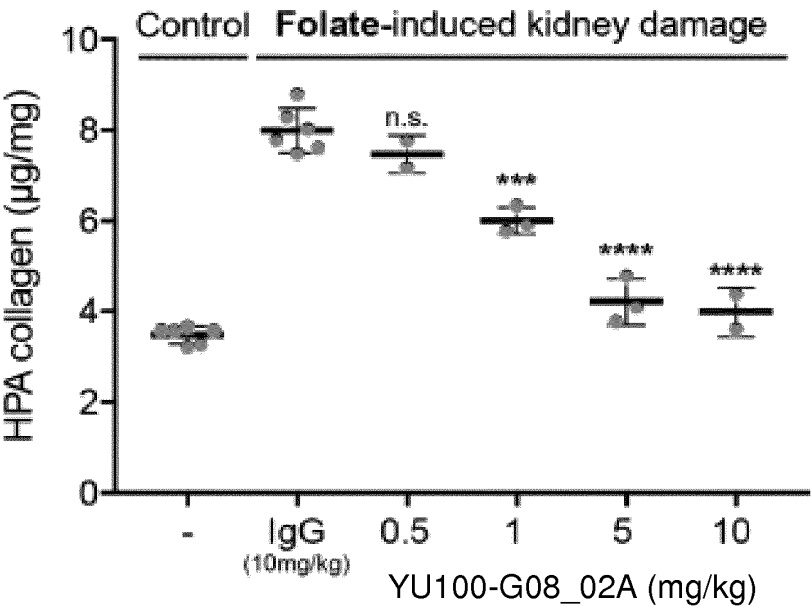


Figure 27C

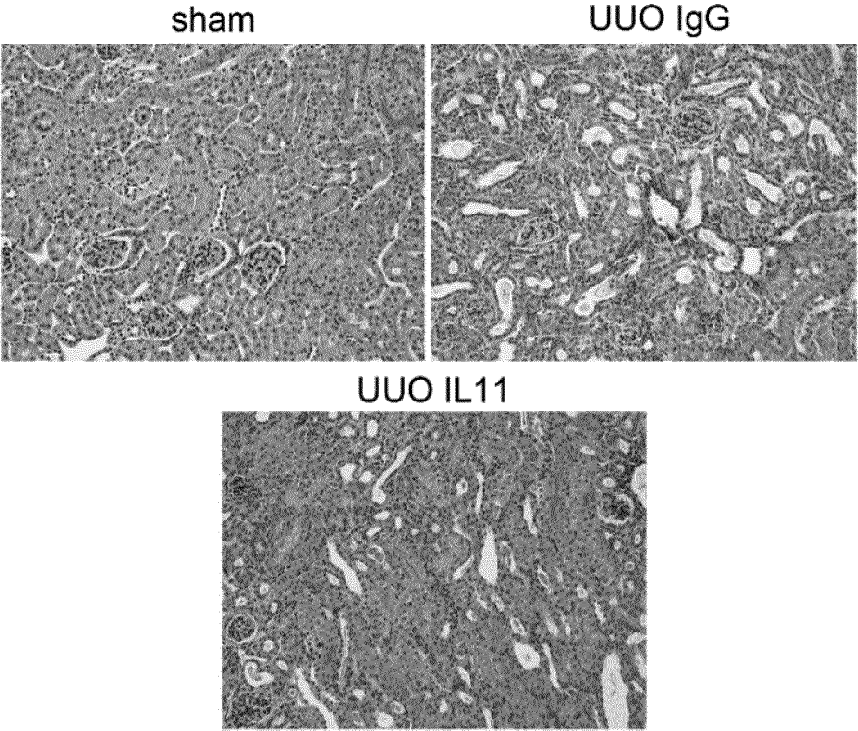


Figure 28A

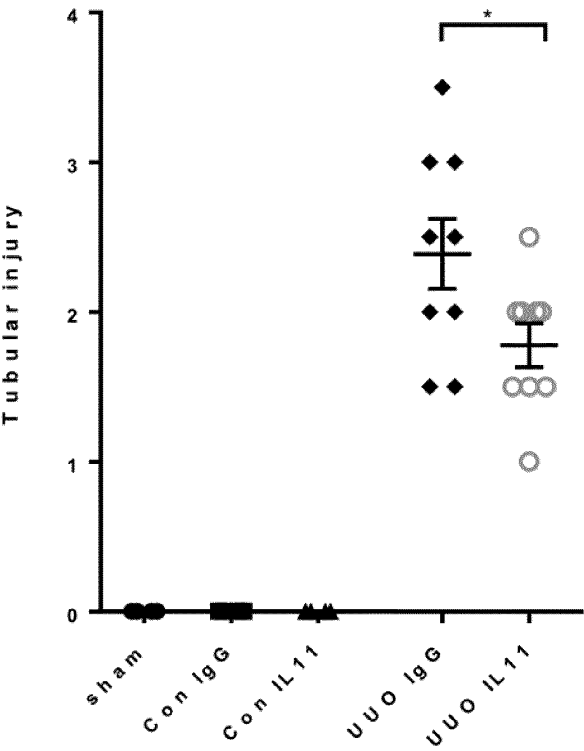


Figure 28B

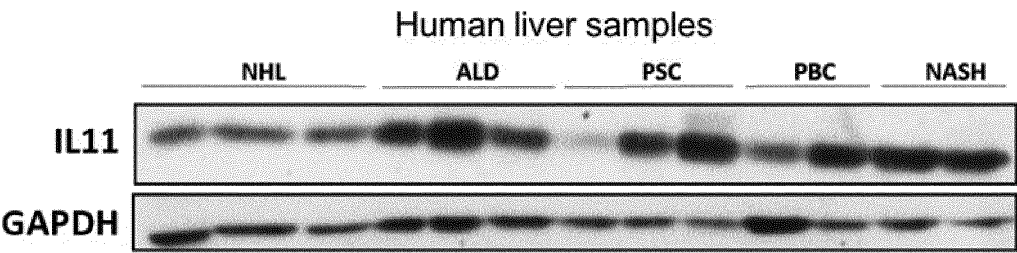


Figure 29

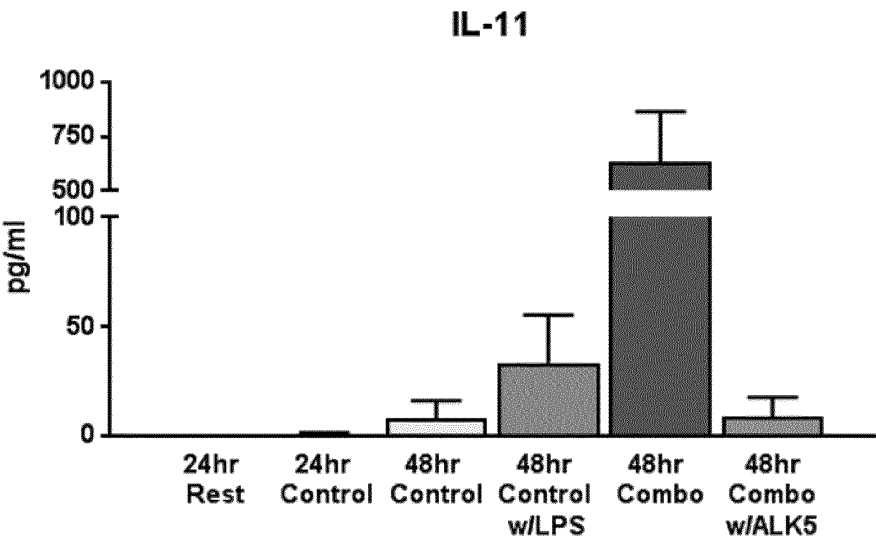


Figure 30A

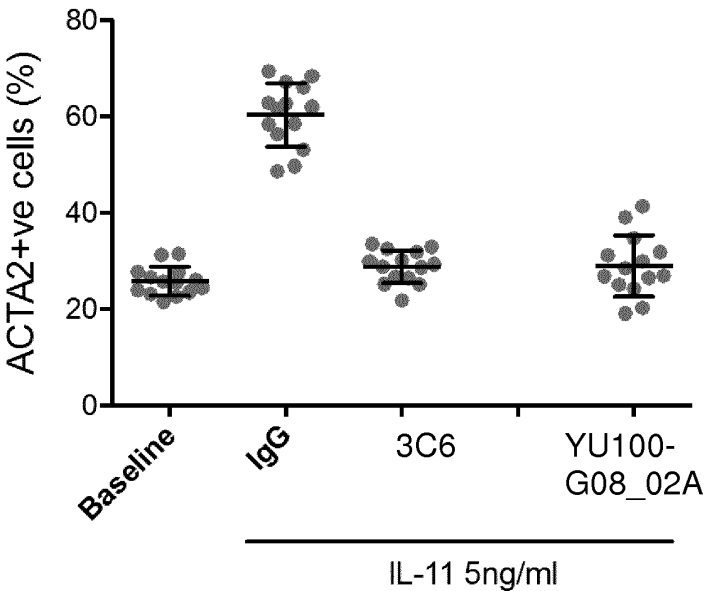


Figure 30B

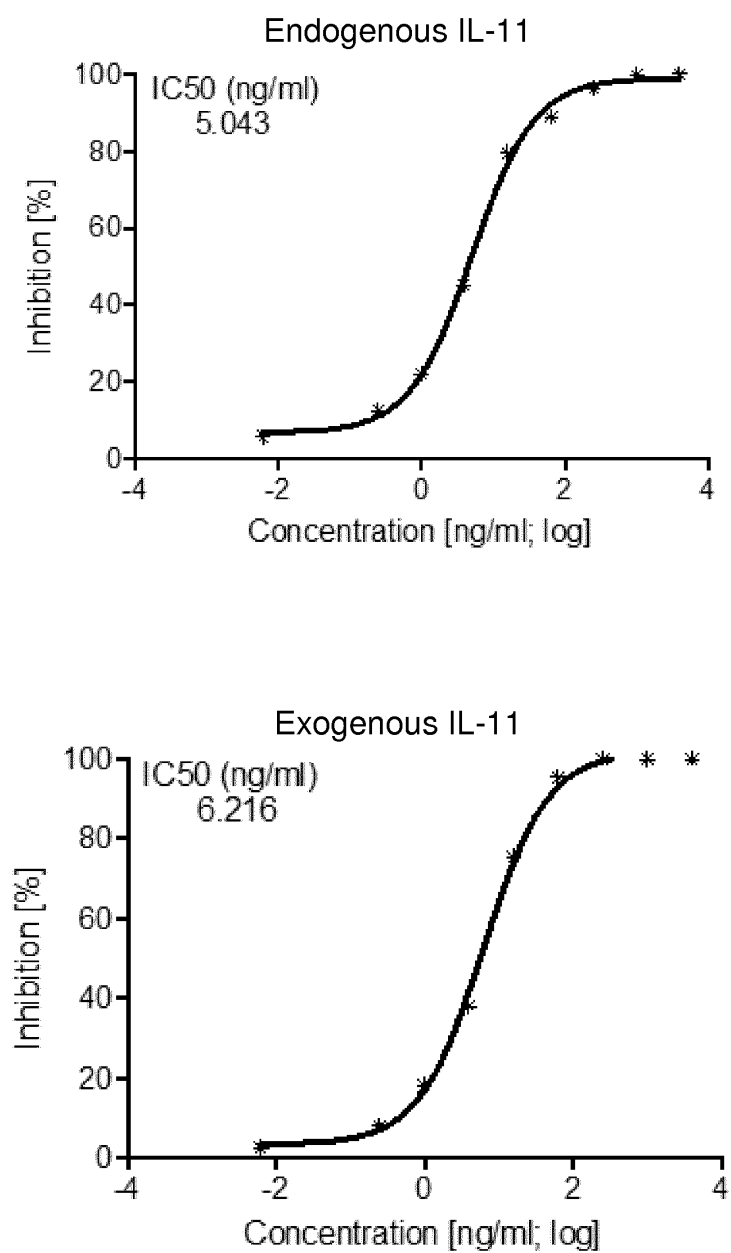


Figure 30C

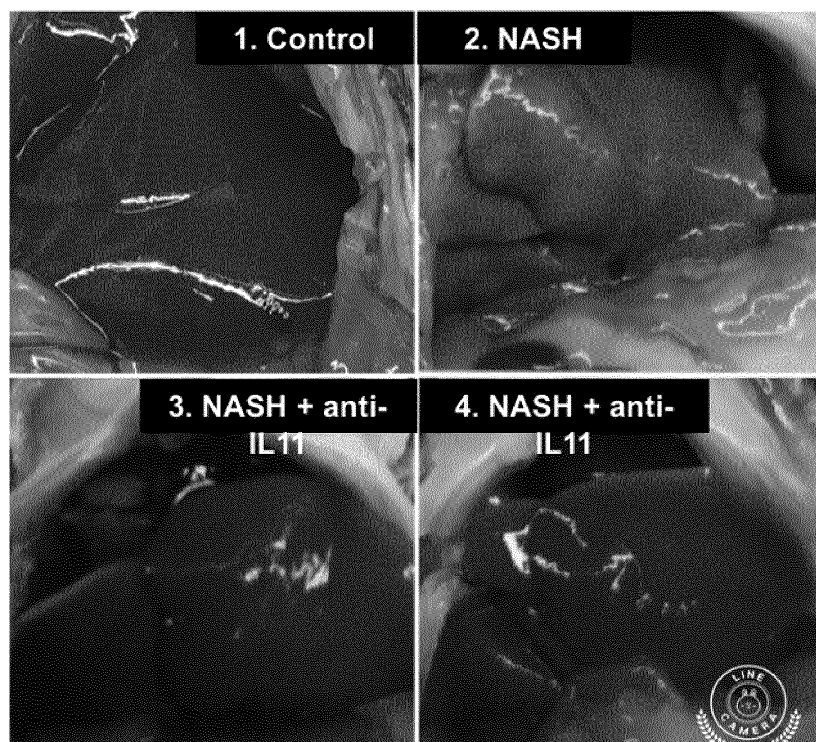


Figure 31A

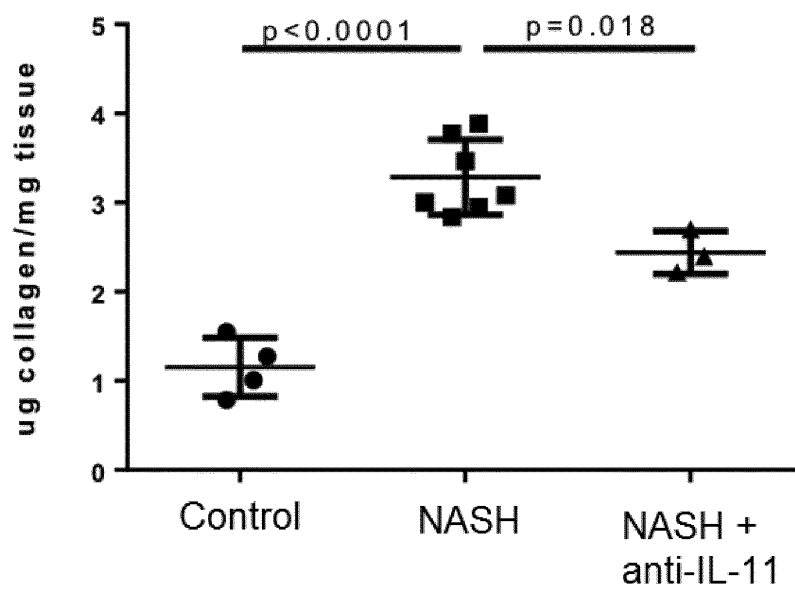


Figure 31B

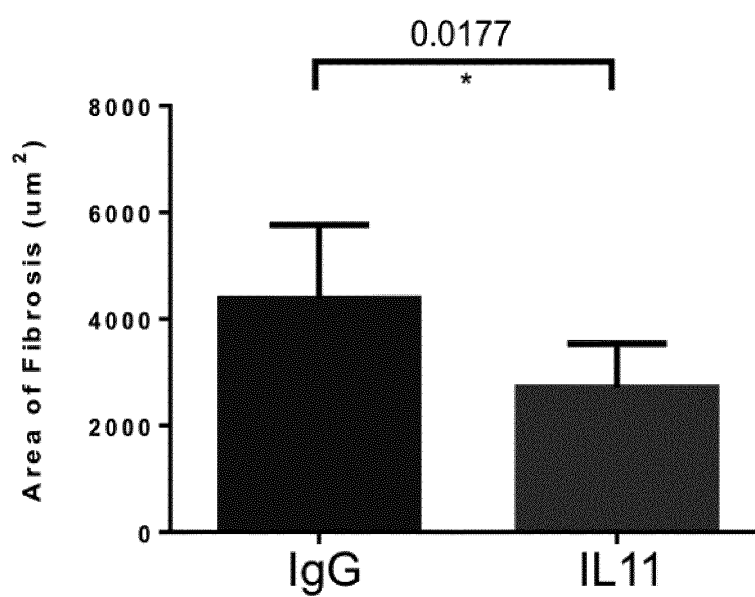


Figure 32A

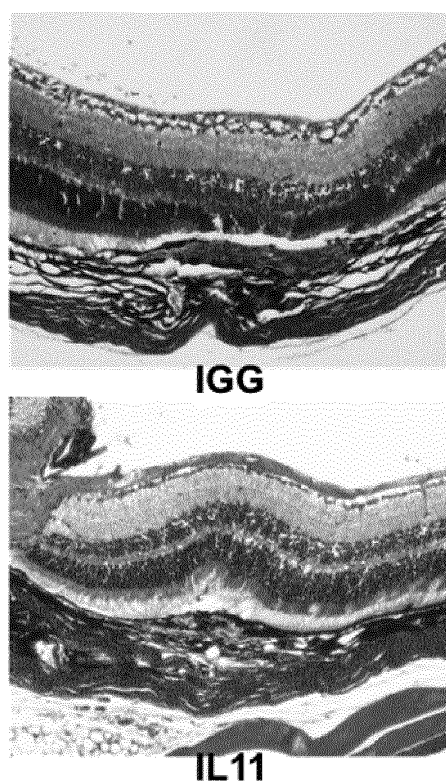


Figure 32B

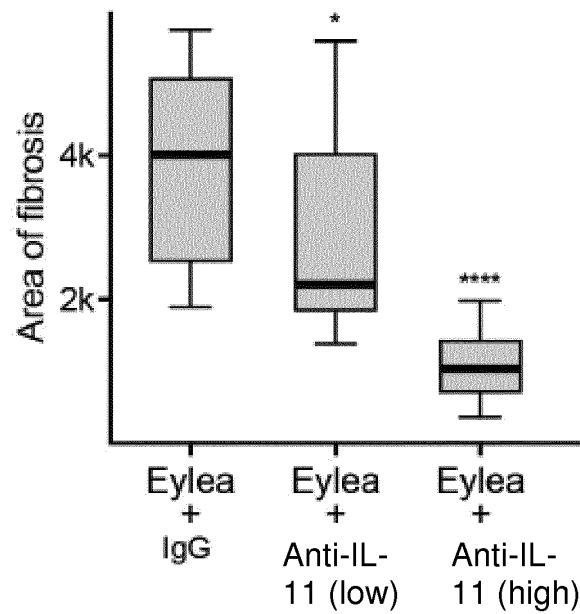


Figure 32C

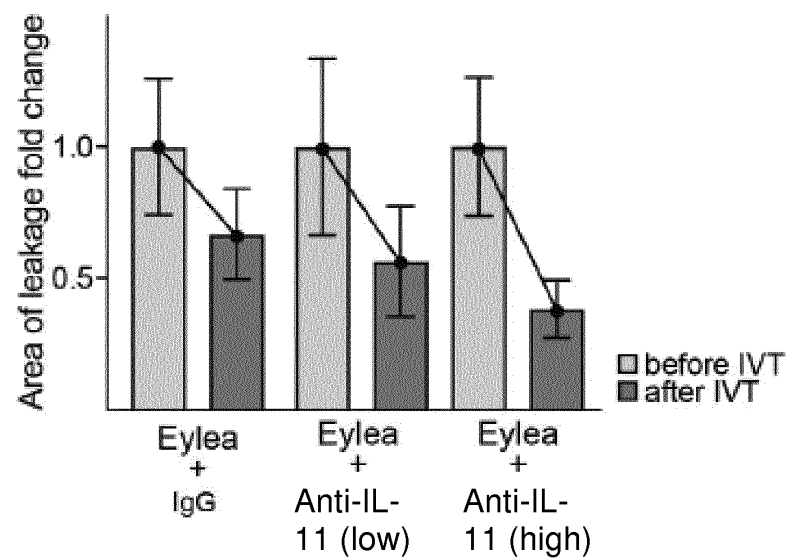


Figure 32D

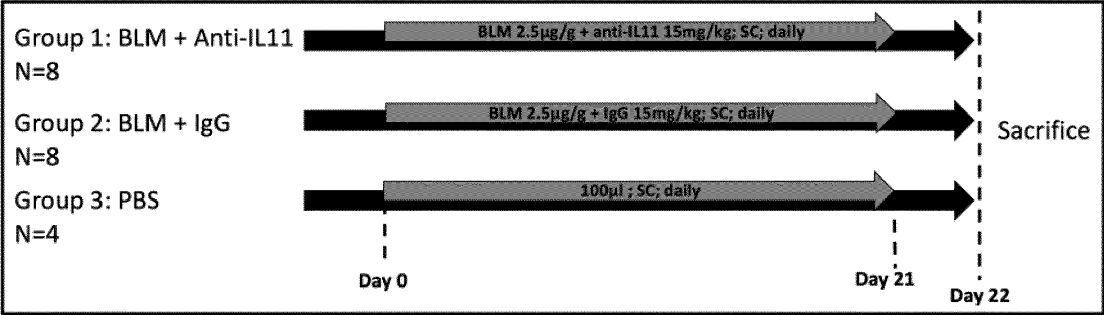


Figure 33A

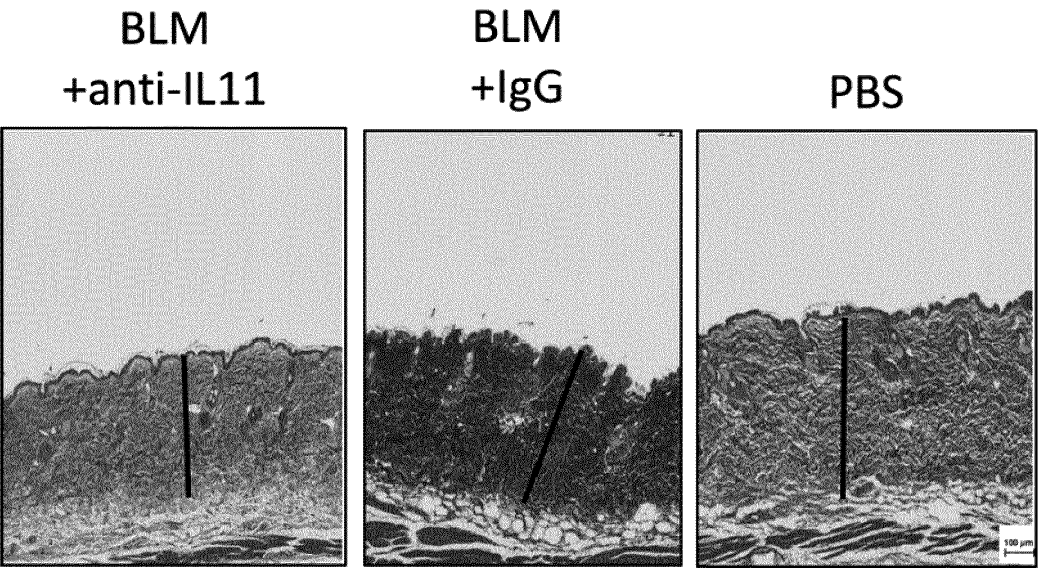


Figure 33B

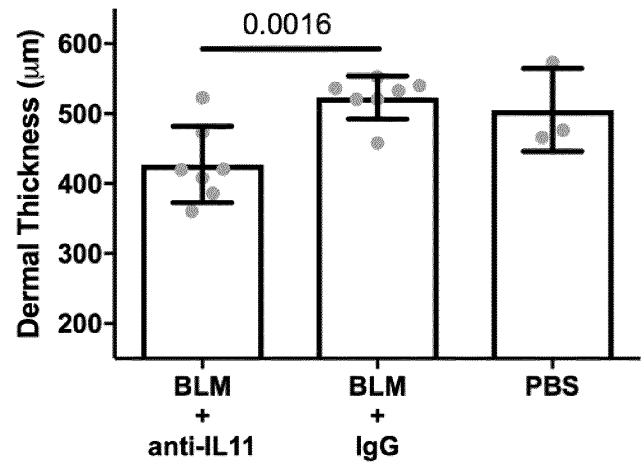


Figure 33C

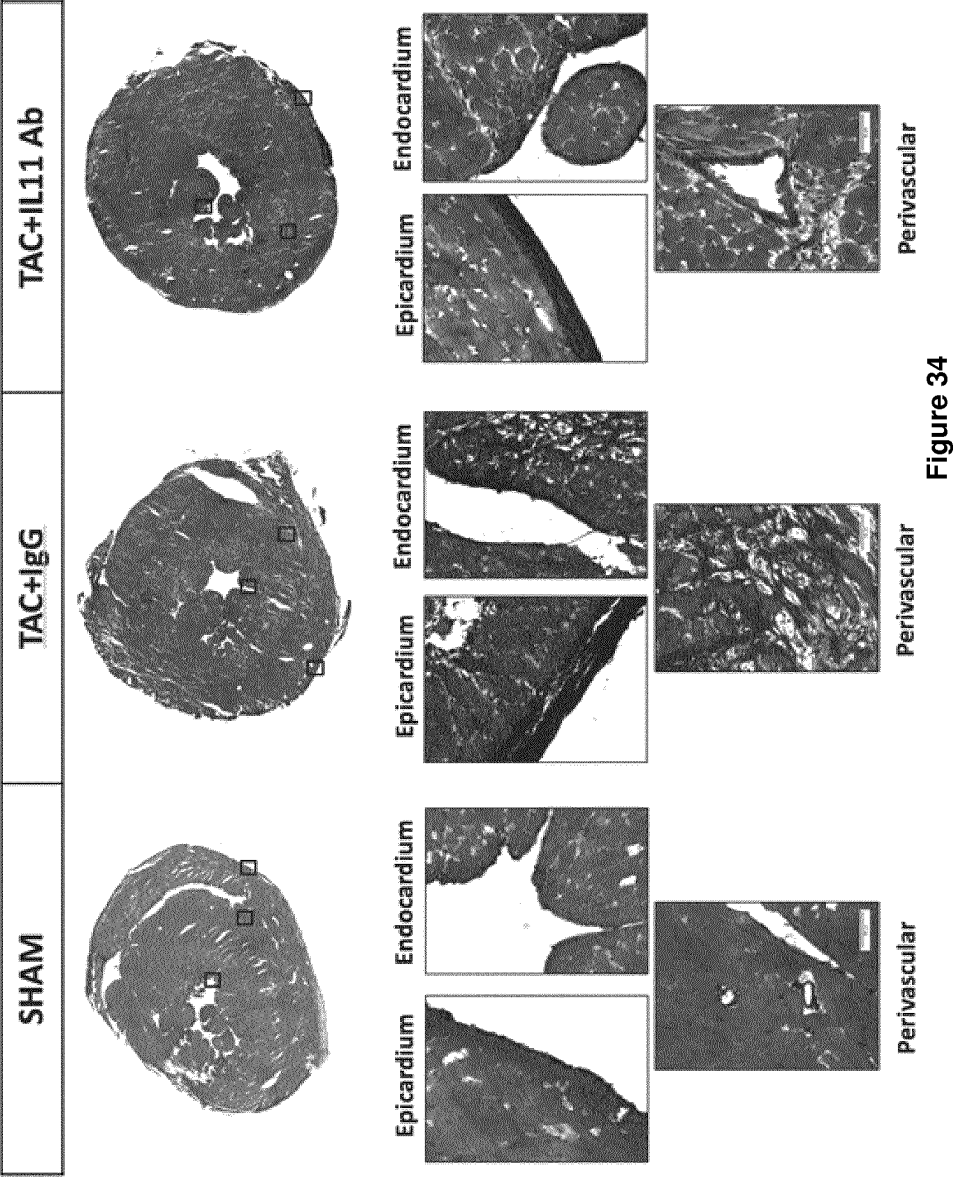


Figure 34

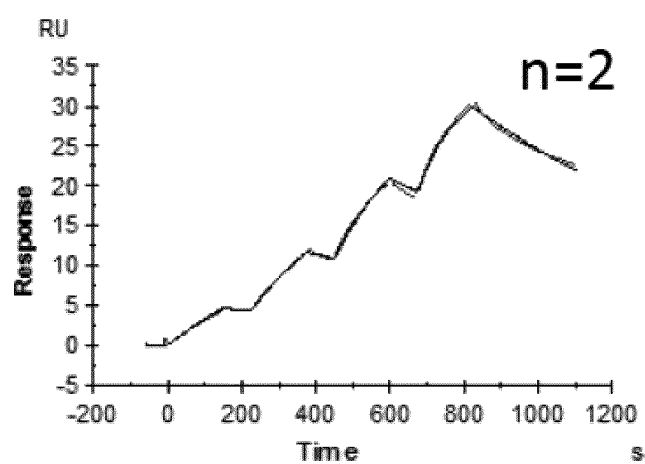


Figure 35A

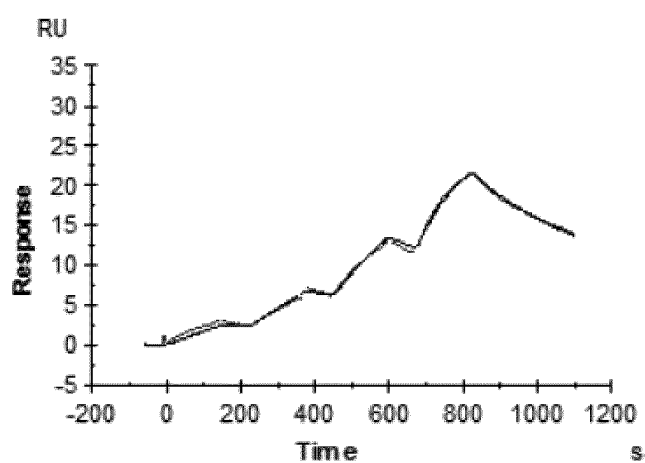


Figure 35B

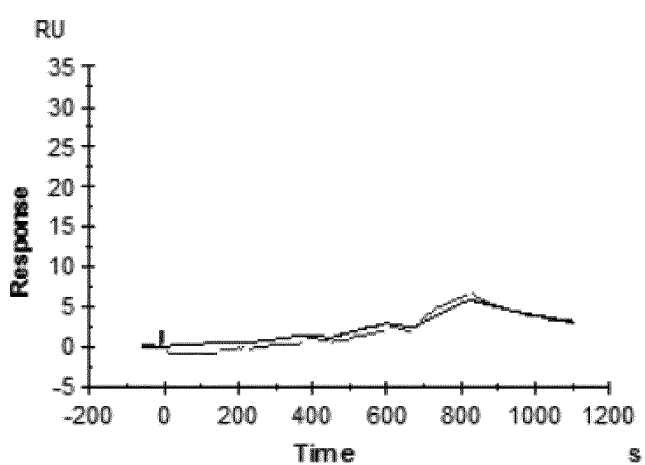


Figure 35C

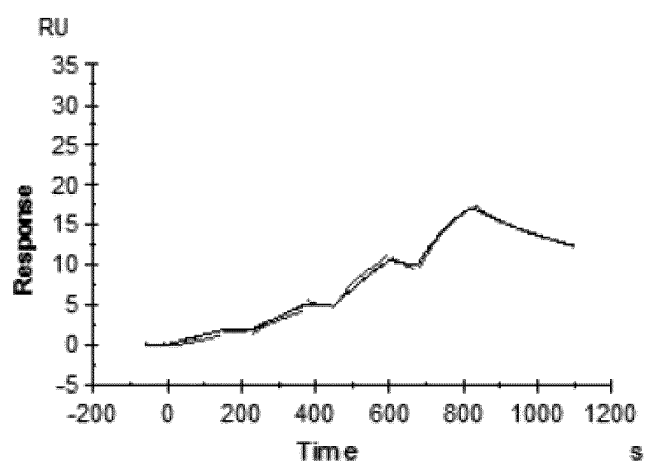


Figure 35D

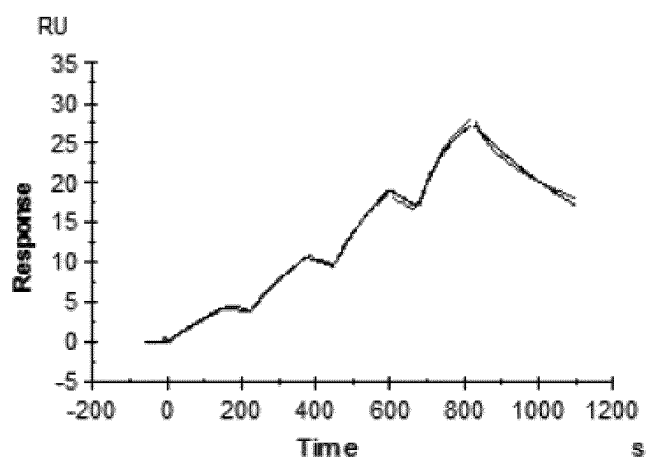


Figure 35E

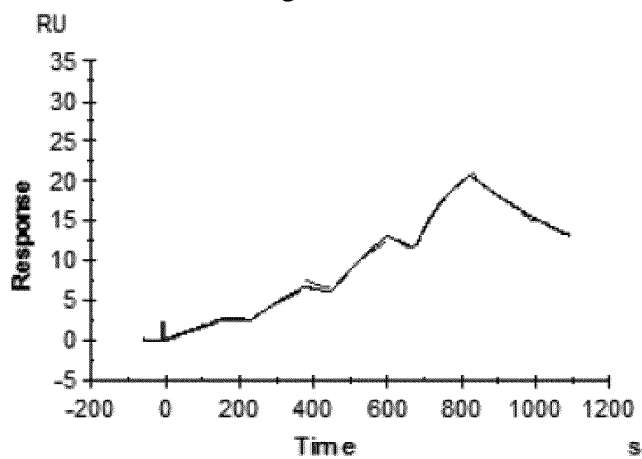


Figure 35F

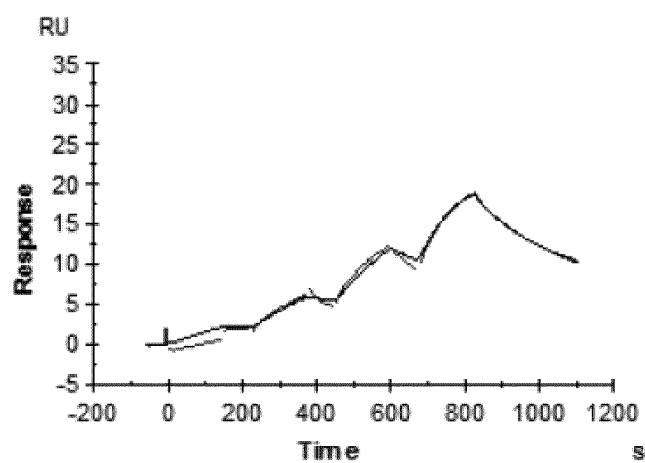


Figure 35G

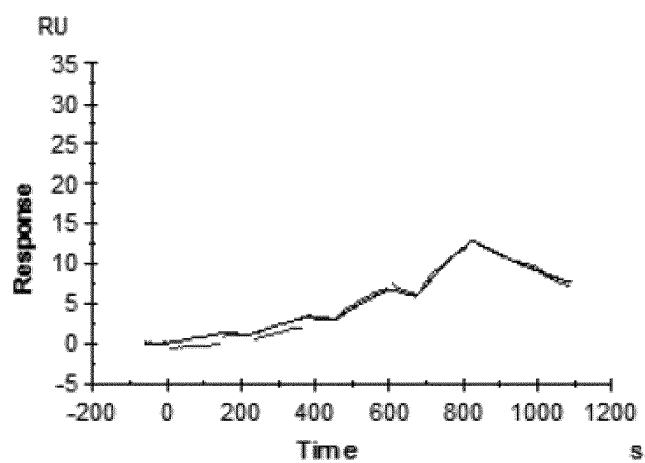


Figure 35H

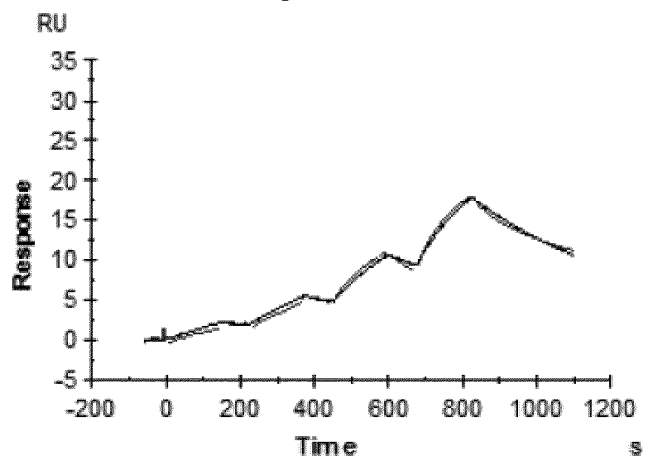


Figure 35I

and	k_a (1/Ms)	k_d (1/s)	K_D (M)	χ^2 (RU ²)	Relative compare G08 C
C89	3.69×10^5	1.30×10^{-3}	3.51×10^{-9}	0.172	1.00
C89A	6.99×10^5	3.12×10^{-3}	4.46×10^{-9}	0.133	1.27
C89G	2.72×10^4	5.37×10^{-2}	1.98×10^{-6}	0.488	564.1
G89I	8.25×10^5	2.38×10^{-3}	2.89×10^{-9}	0.145	0.82
C89L	4.63×10^5	2.02×10^{-3}	4.36×10^{-9}	0.159	1.24
C89Q	4.26×10^5	2.49×10^{-3}	5.84×10^{-9}	0.0681	1.66
C89S	1.28×10^6	6.39×10^{-3}	4.99×10^{-9}	0.35	1.42
C89T	5.92×10^4	2.07×10^{-3}	3.50×10^{-8}	0.327	9.97
C89V	2.07×10^5	2.15×10^{-3}	1.04×10^{-8}	0.204	2.96

Figure 35J

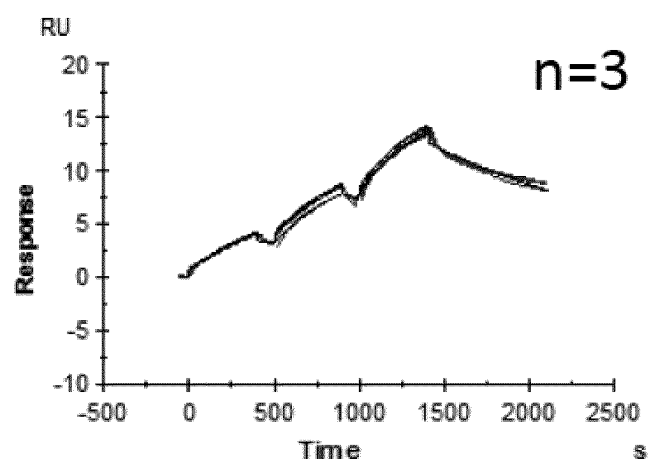


Figure 36A

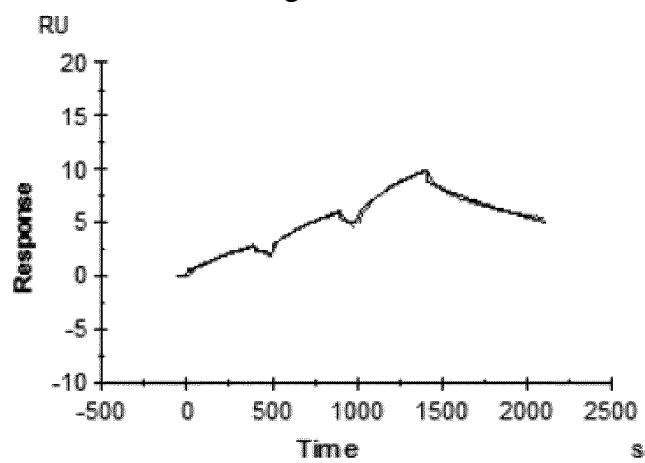


Figure 36B

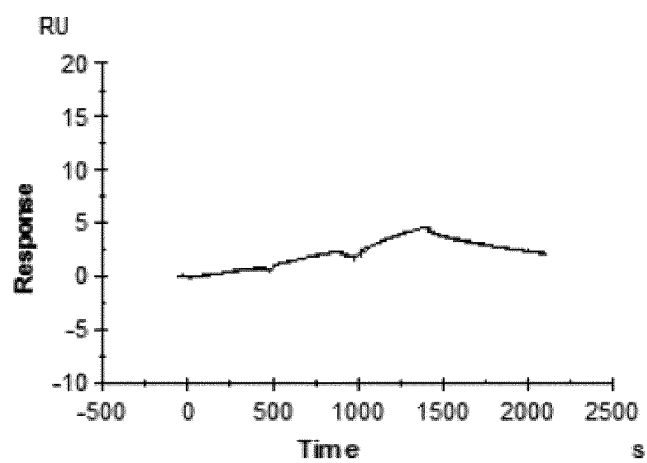


Figure 36C

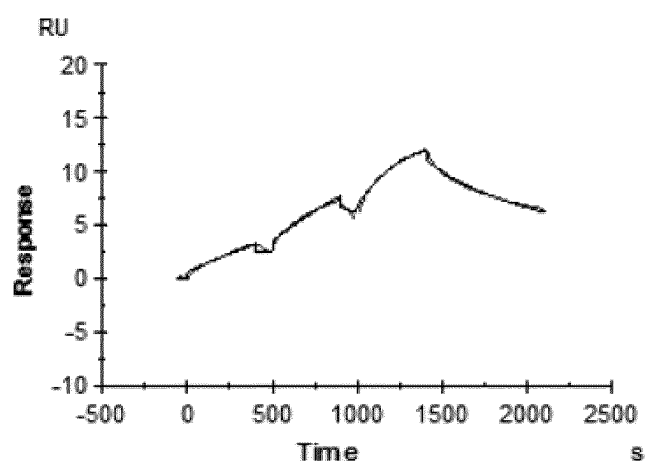


Figure 36D

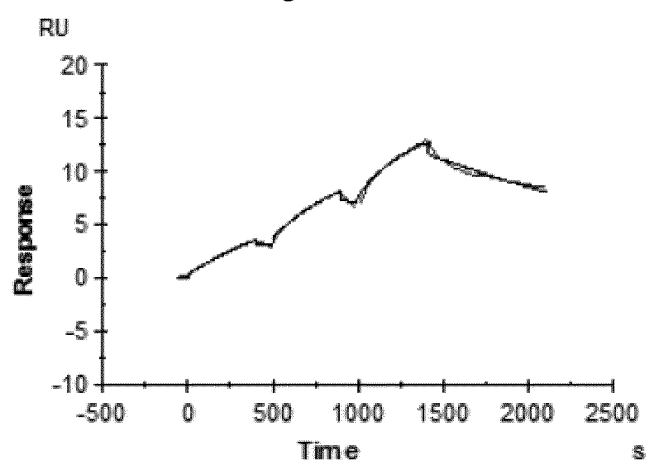


Figure 36E

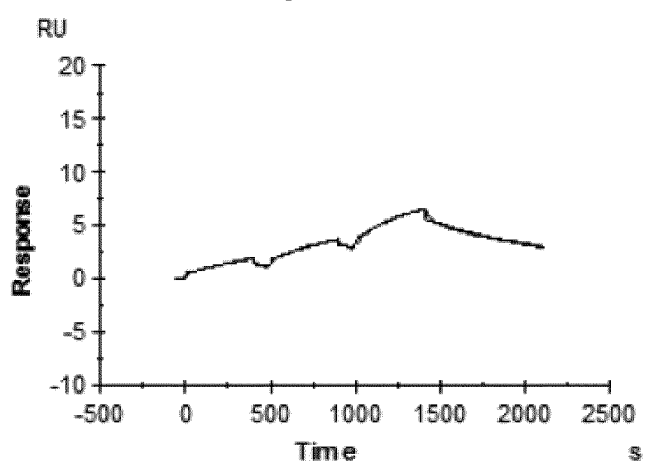


Figure 36F

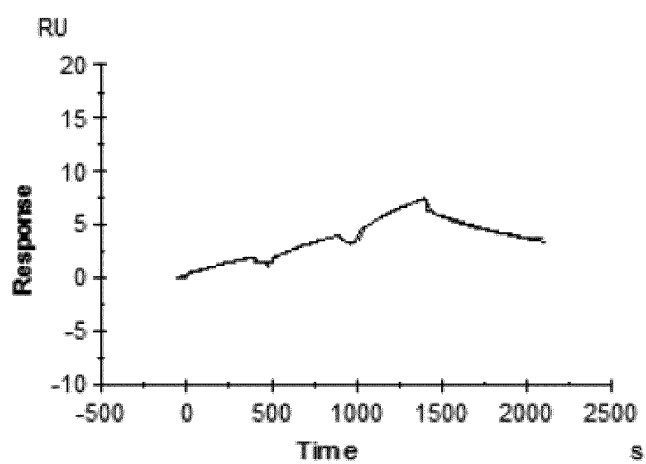


Figure 36G

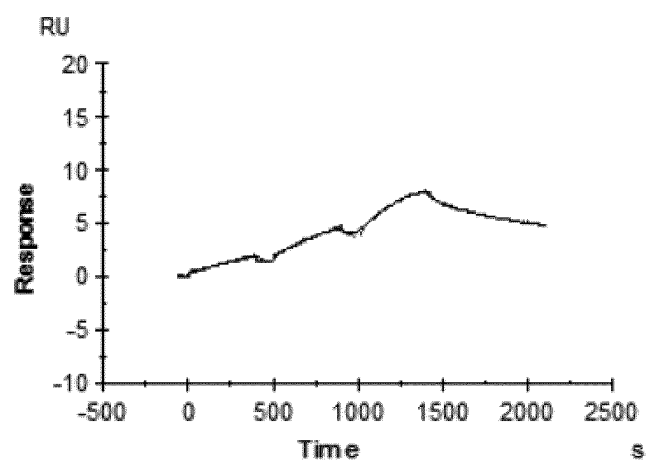


Figure 36H

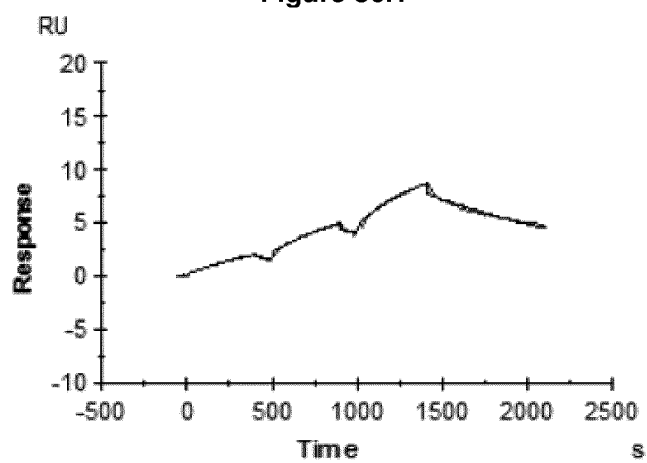


Figure 36I

and	k_a (1/Ms)	k_d (1/s)	K_D (M)	χ^2 (RU ²)	Relative compared H01 C
C89	1.48×10^4	6.58×10^{-4}	4.23×10^{-8}	0.0768	1.00
C89A	1.29×10^4	8.10×10^{-4}	6.26×10^{-8}	0.038	1.48
C89G	1.76×10^3	9.86×10^{-4}	5.60×10^{-7}	0.0125	13.2
G89I	9.21×10^4	2.69×10^{-3}	2.92×10^{-8}	0.0428	0.69
C89L	1.57×10^4	5.26×10^{-4}	3.35×10^{-8}	0.0532	0.79
C89Q	9.29×10^3	9.66×10^{-4}	1.04×10^{-7}	0.0171	2.46
C89S	8.47×10^3	9.05×10^{-4}	1.07×10^{-7}	0.0198	2.53
C89T	7.42×10^5	1.27×10^{-2}	1.71×10^{-8}	0.0136	0.40
C89V	9.19×10^3	7.78×10^{-4}	8.47×10^{-8}	0.0257	2.00

Figure 36J

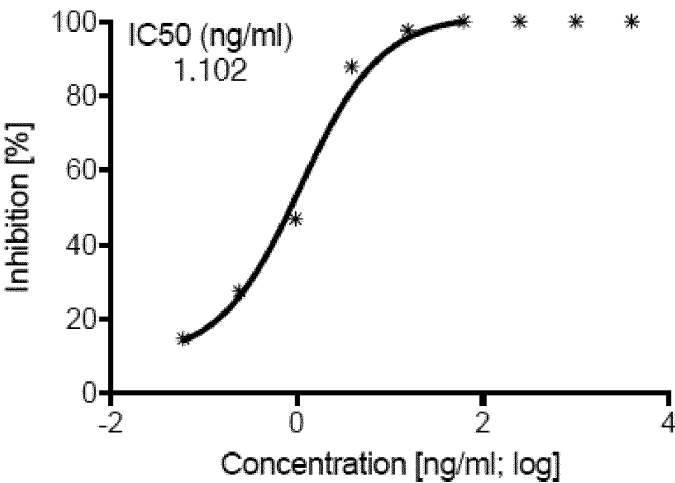


Figure 37A

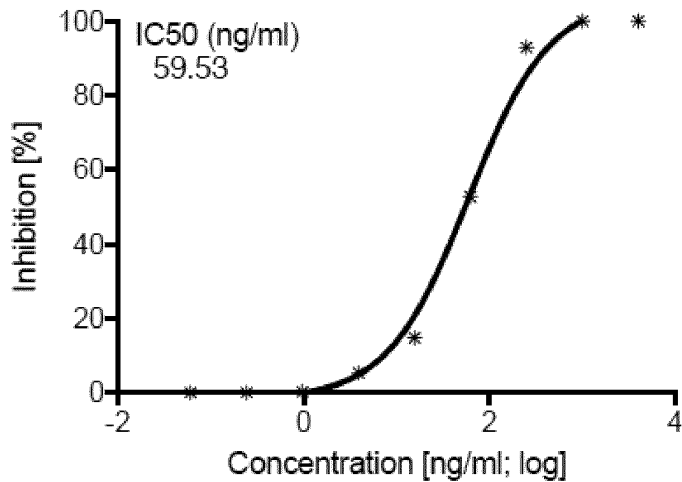


Figure 37B

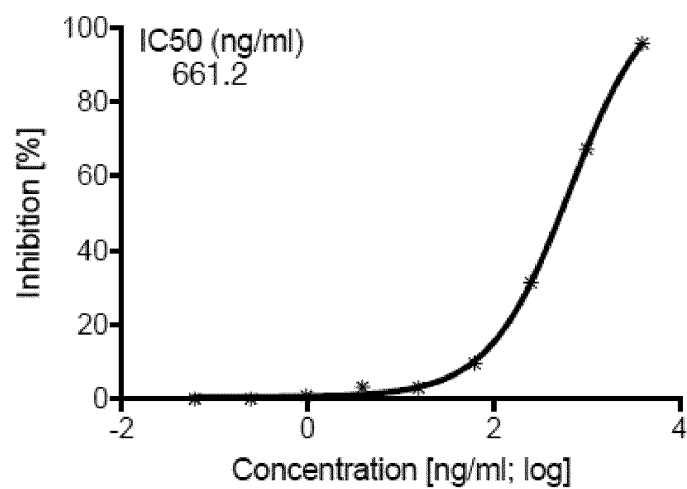


Figure 37C

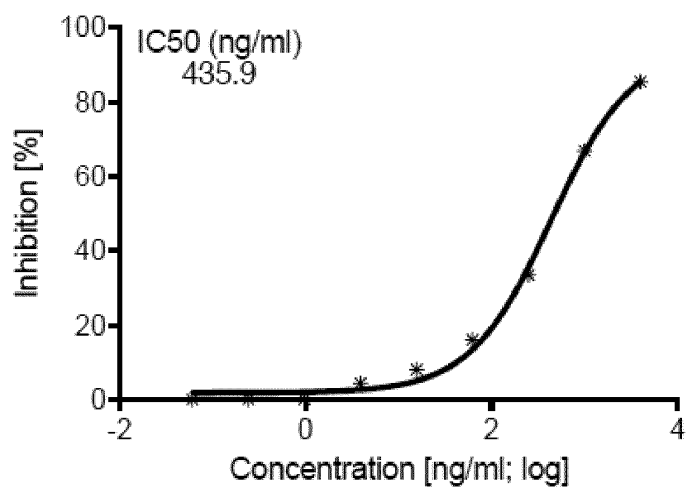


Figure 37D

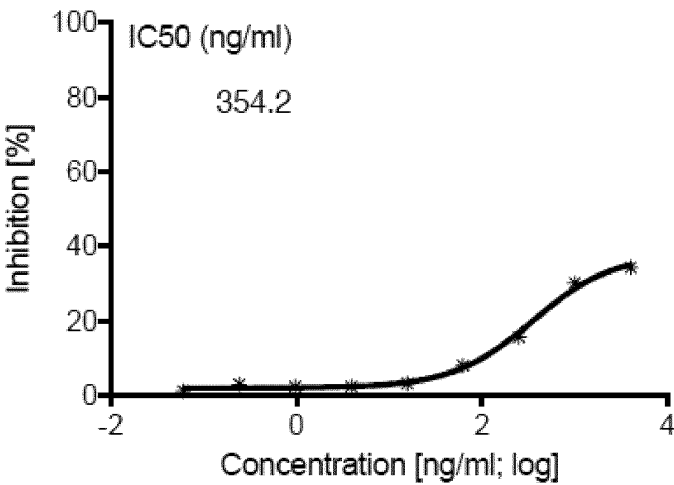


Figure 37E

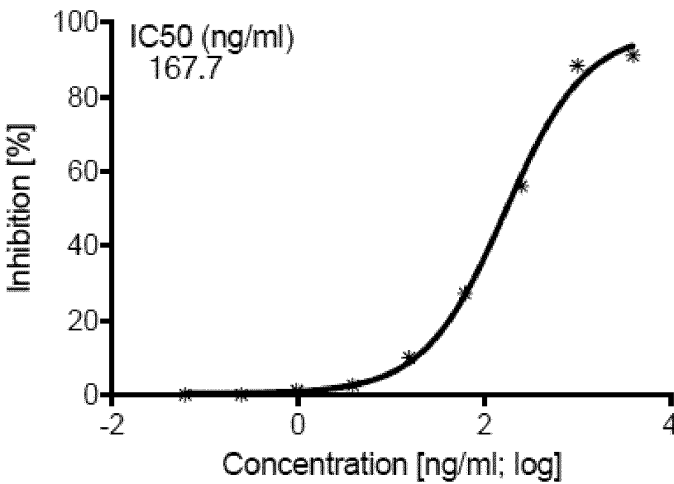


Figure 37F

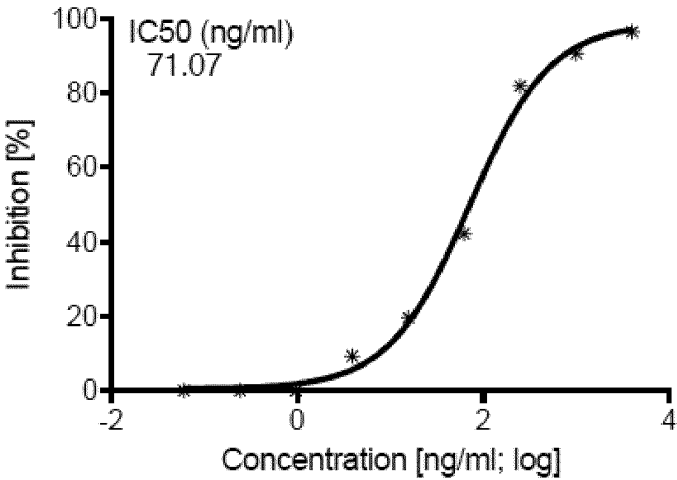


Figure 37G

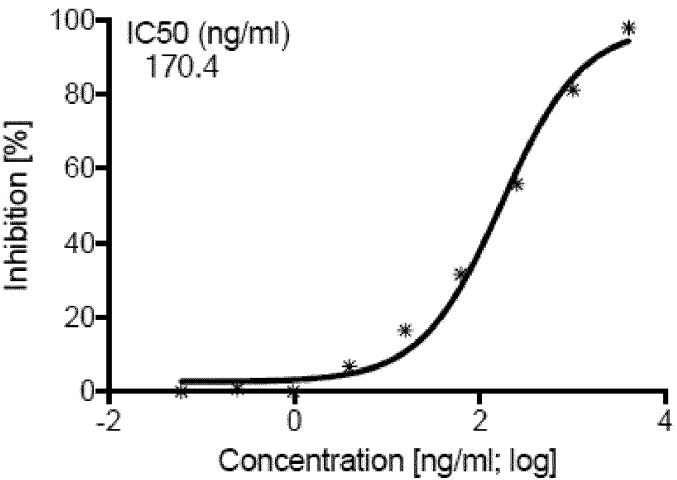


Figure 37H

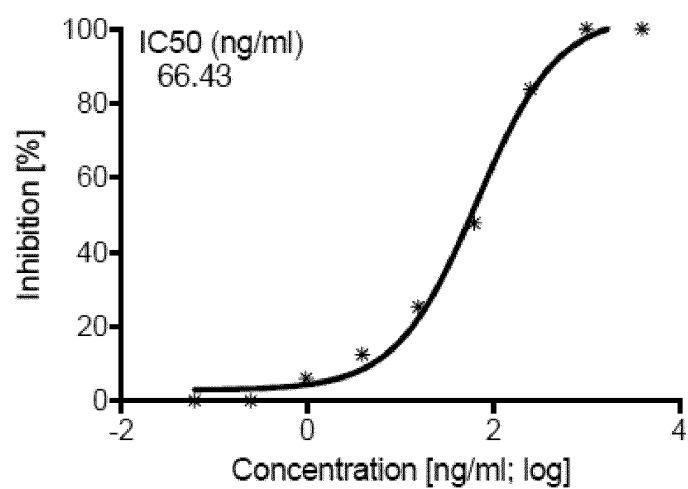


Figure 37I

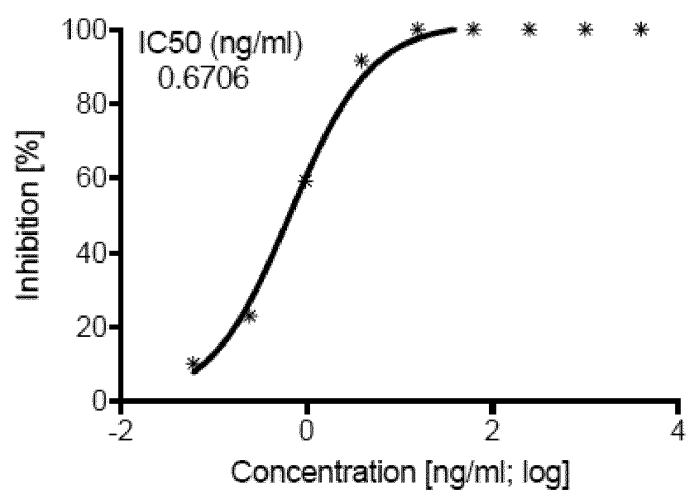


Figure 38A

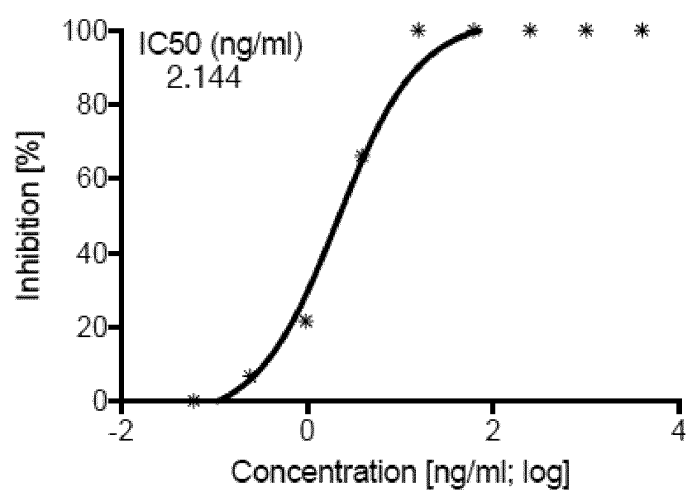


Figure 38B

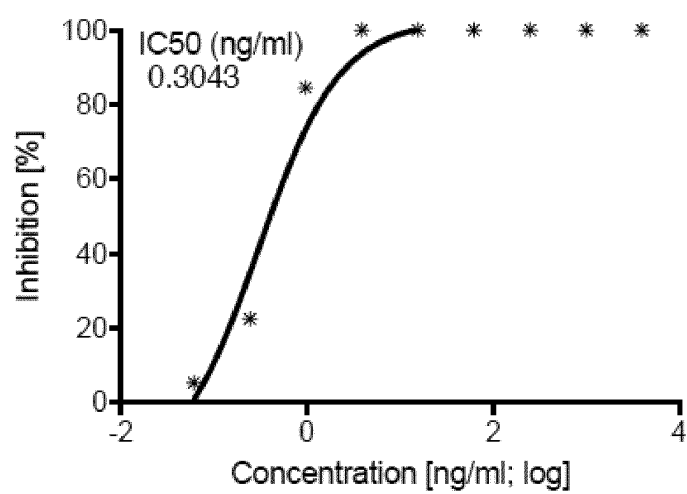


Figure 38C

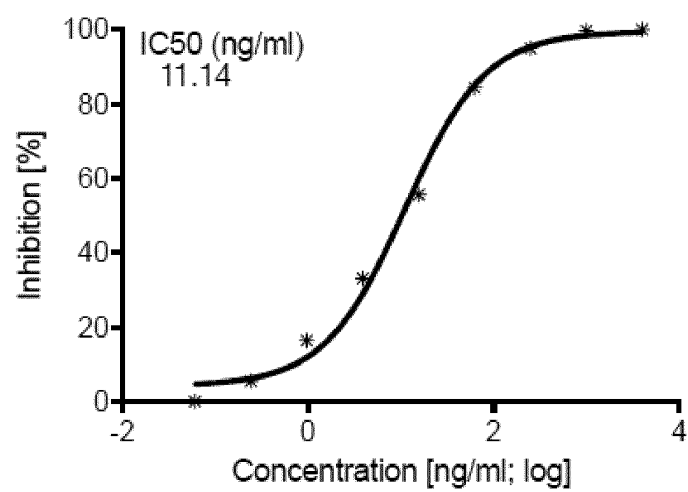


Figure 38D

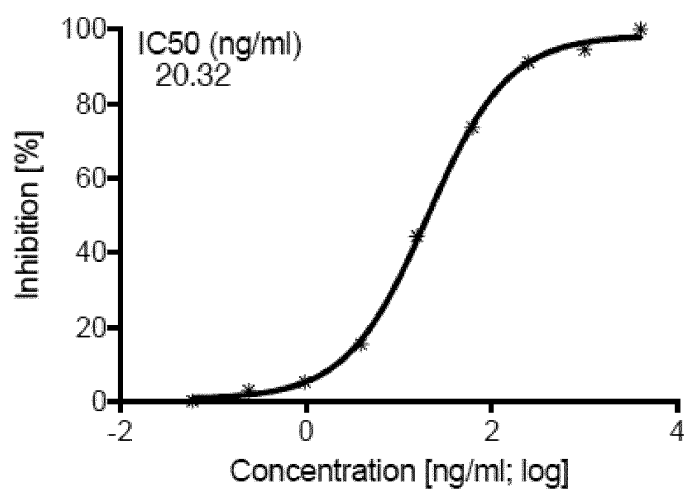


Figure 38E

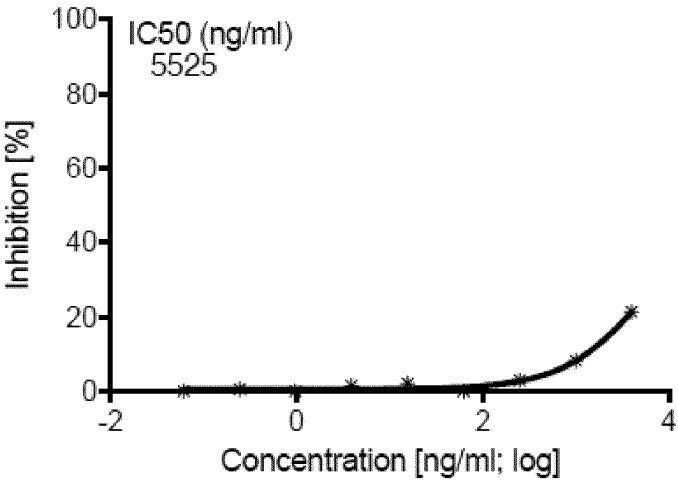


Figure 38F

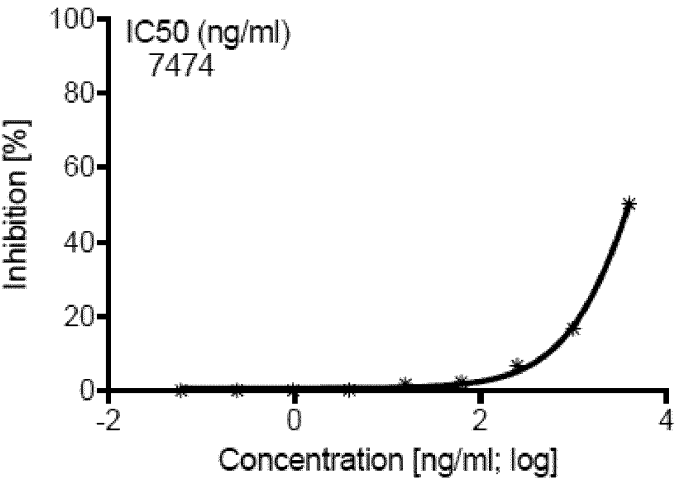


Figure 38G

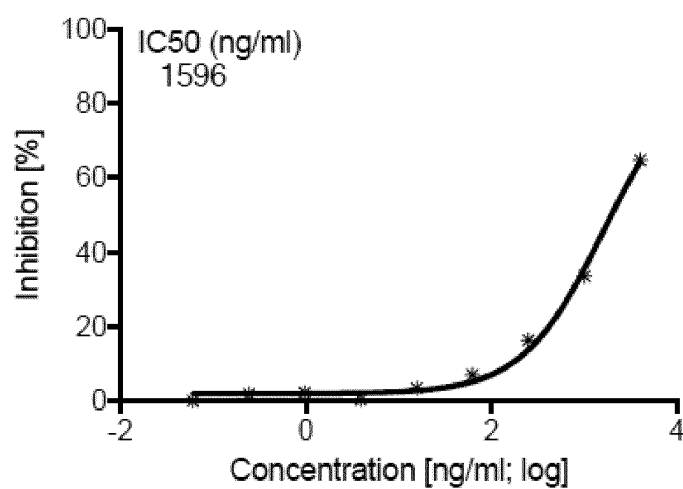


Figure 38H

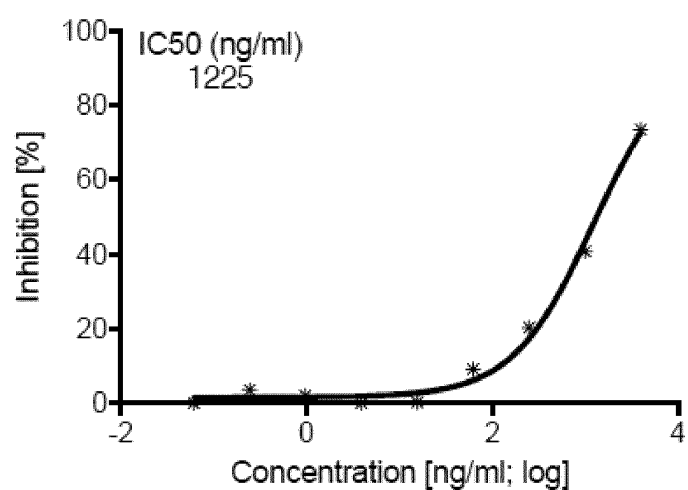


Figure 38I

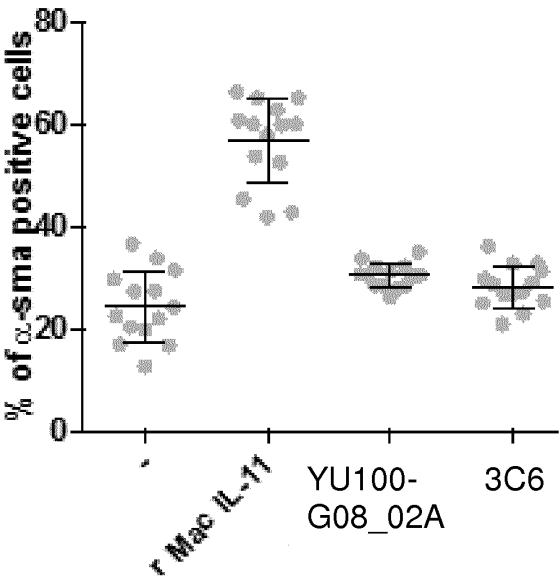


Figure 38J

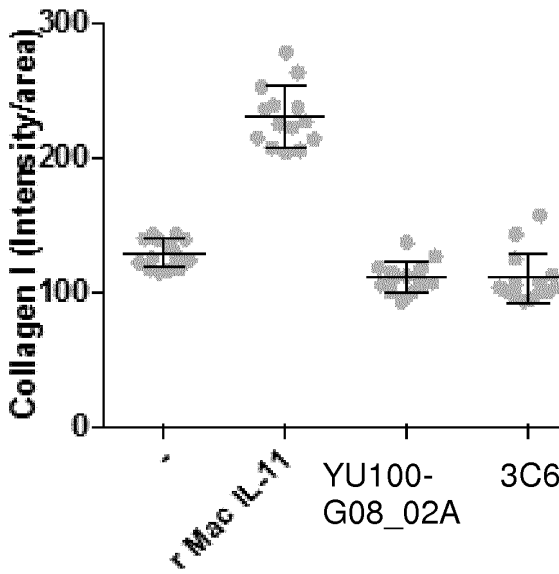


Figure 38K

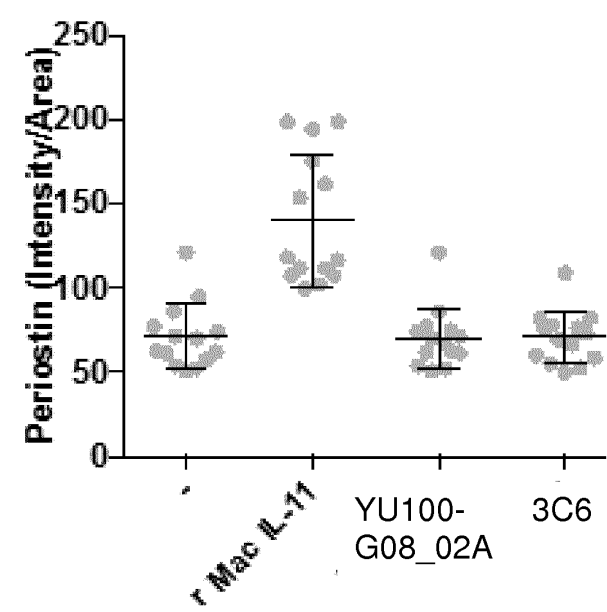


Figure 38L

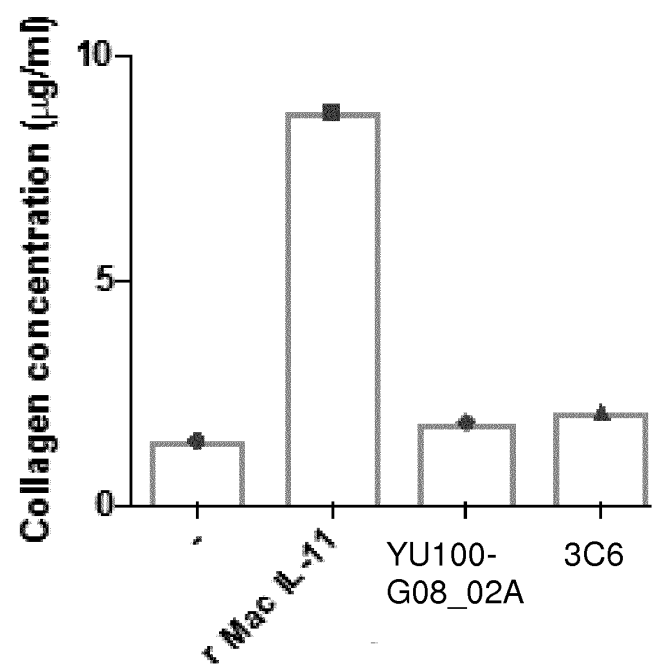


Figure 38M

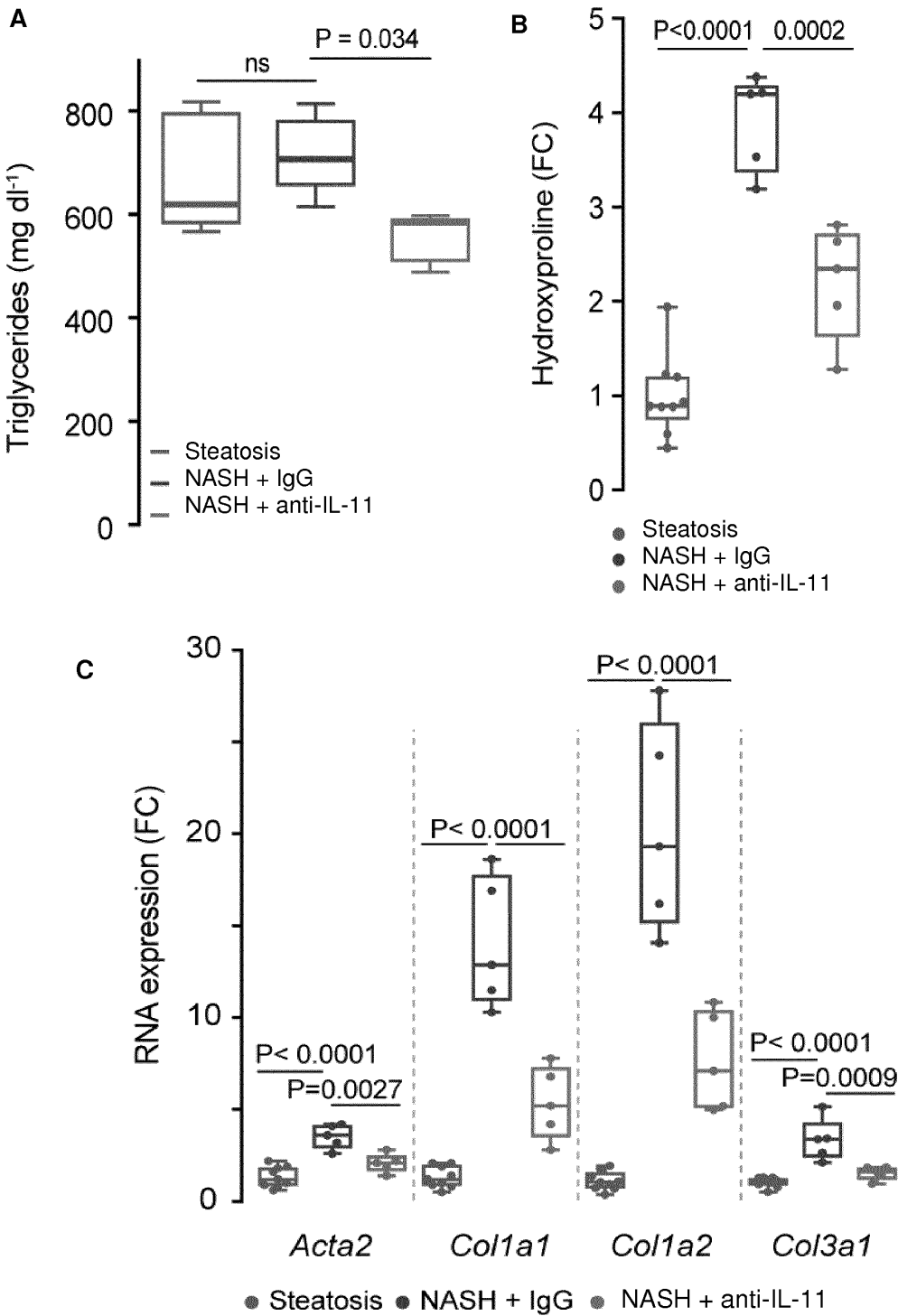


Figure 39A-C

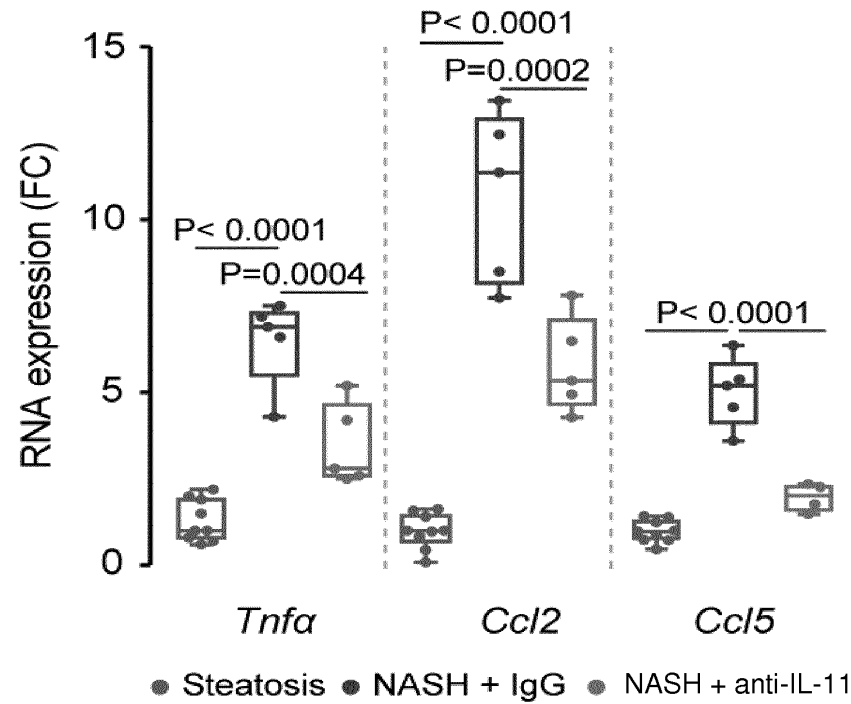


Figure 39D

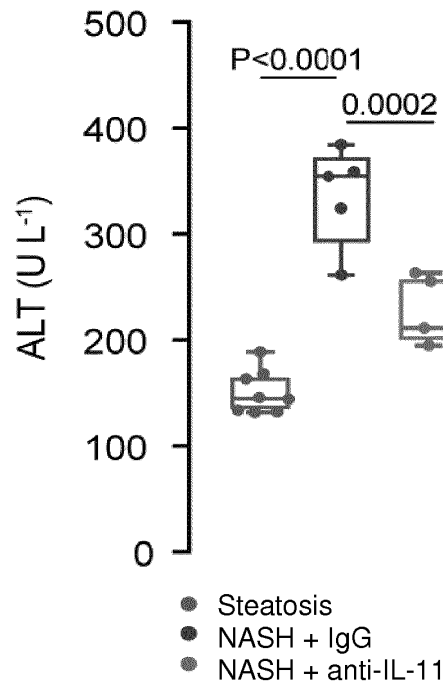


Figure 39E

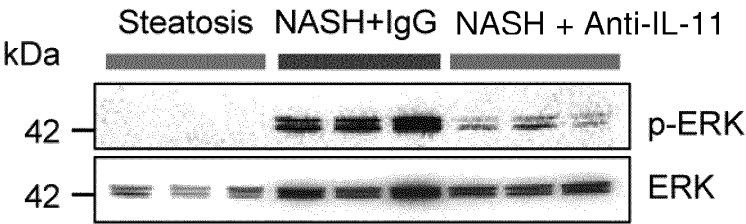


Figure 39F

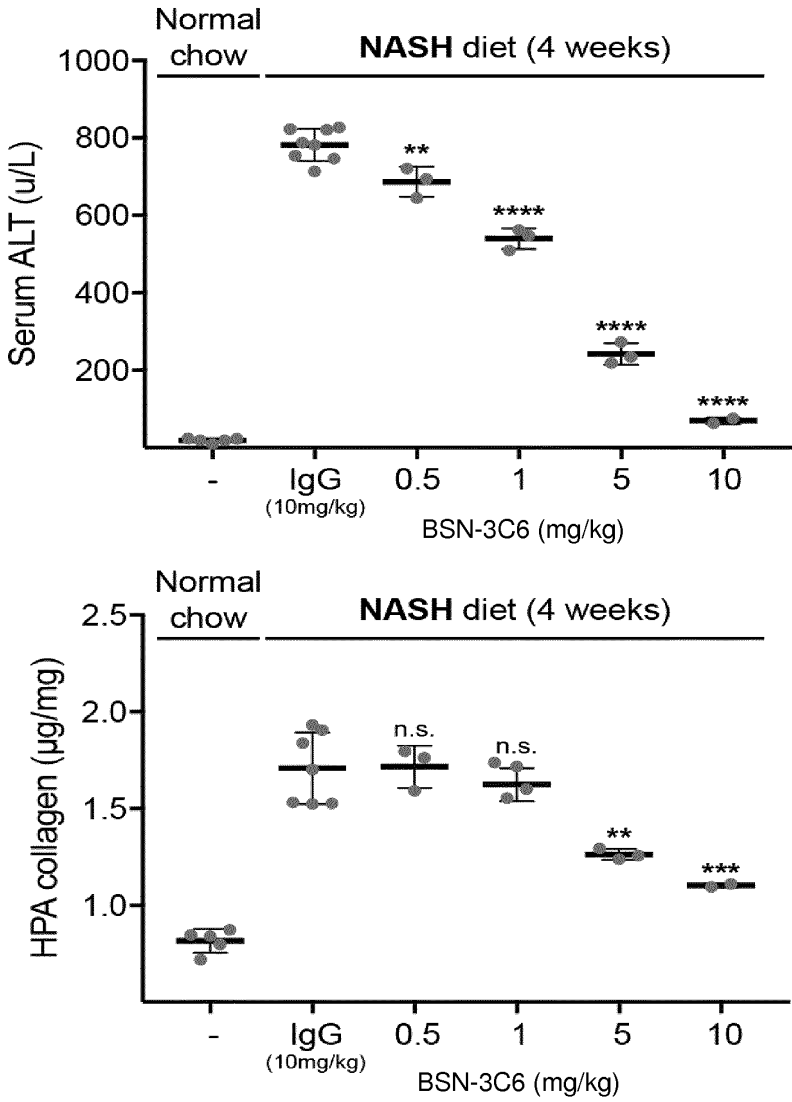


Figure 39G

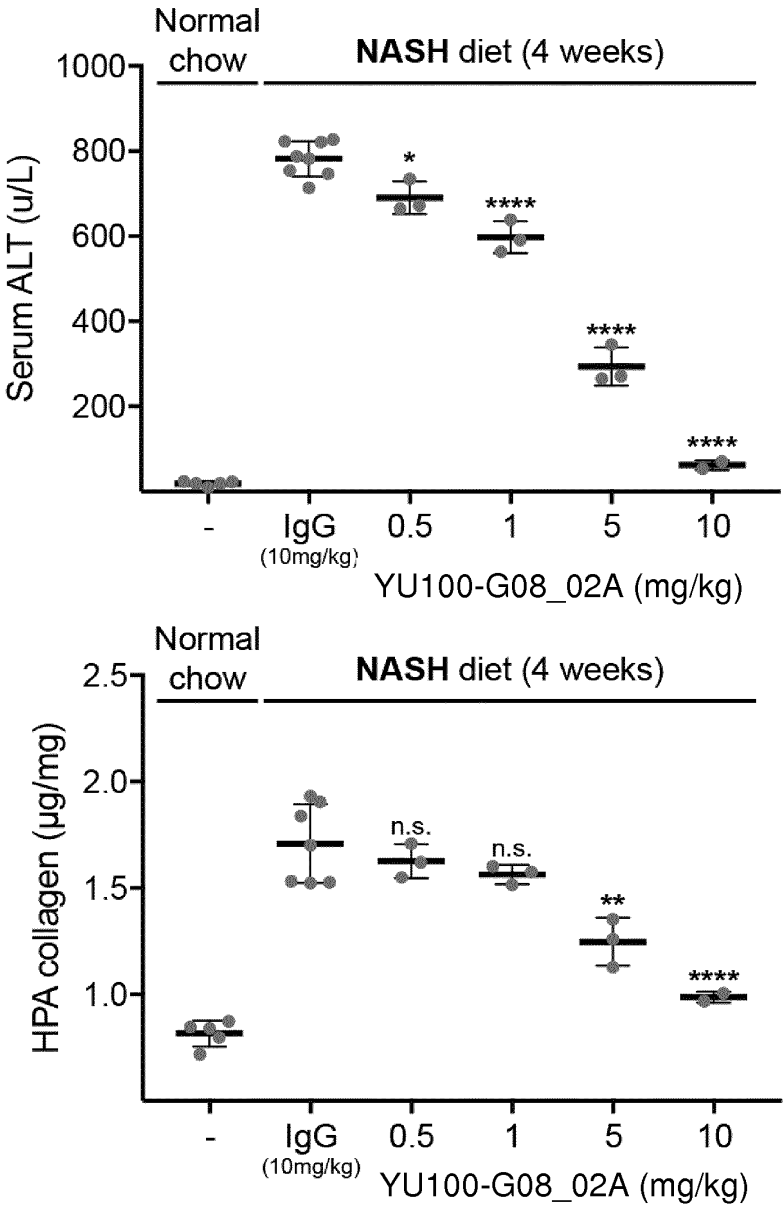


Figure 39H

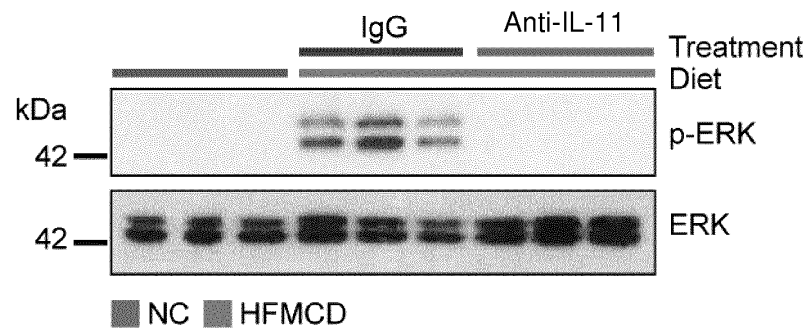
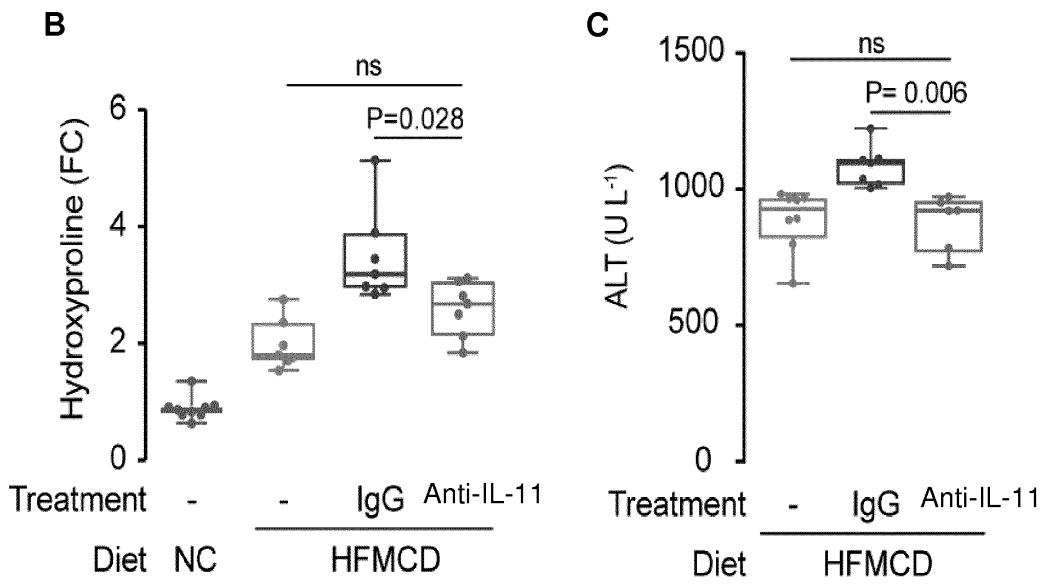


Figure 40A



Figures 40B and 40C

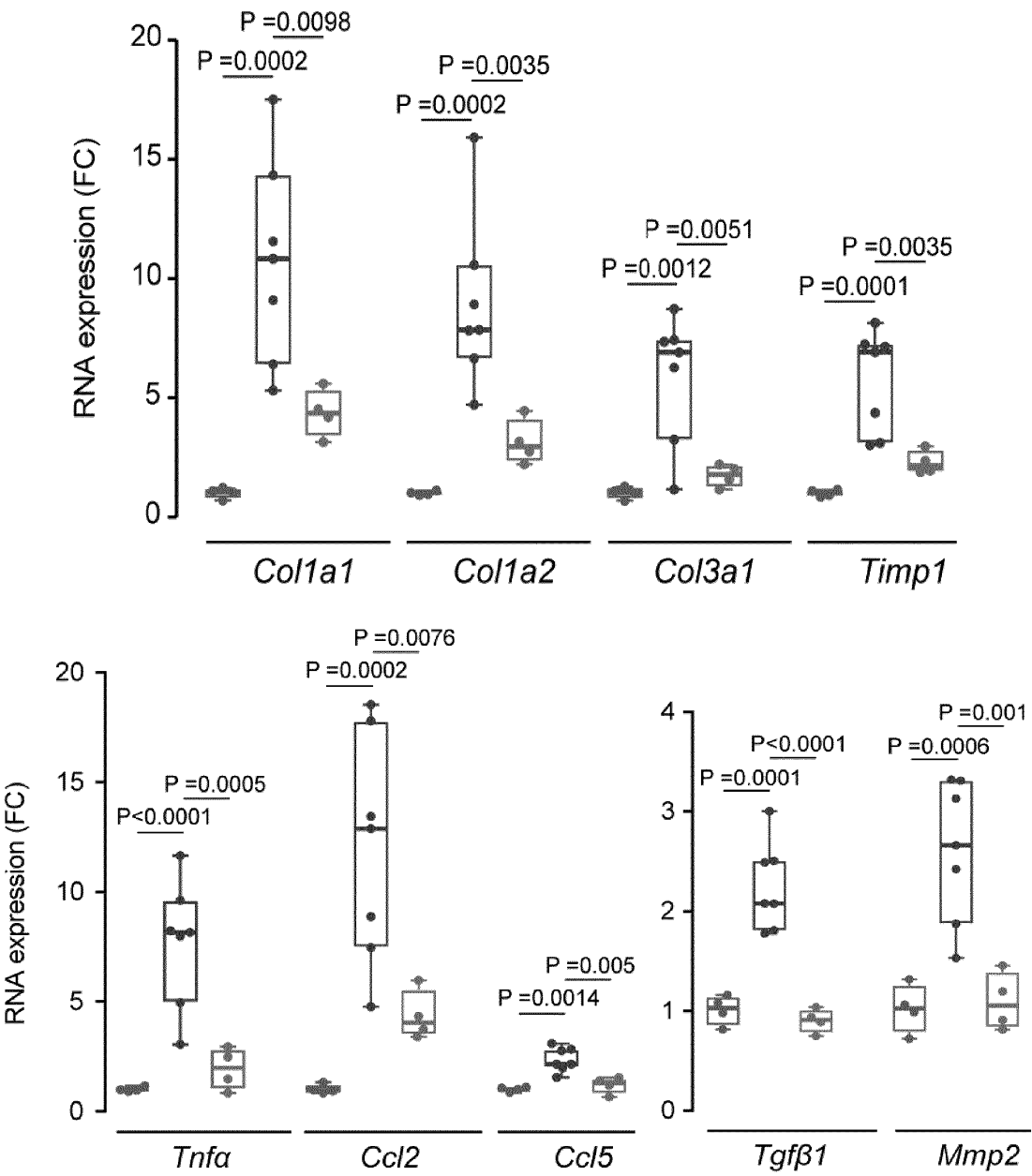


Figure 40D

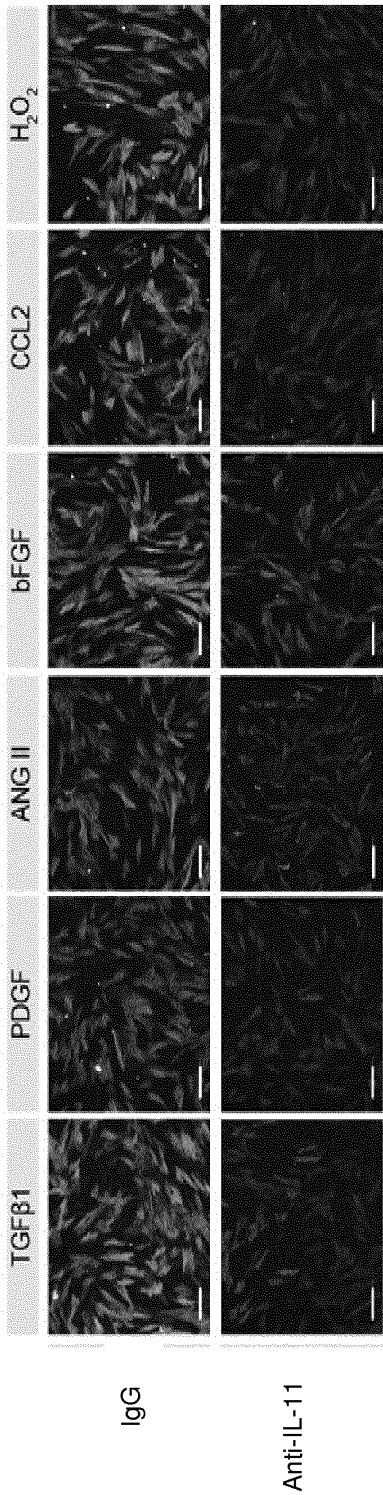


Figure 41A

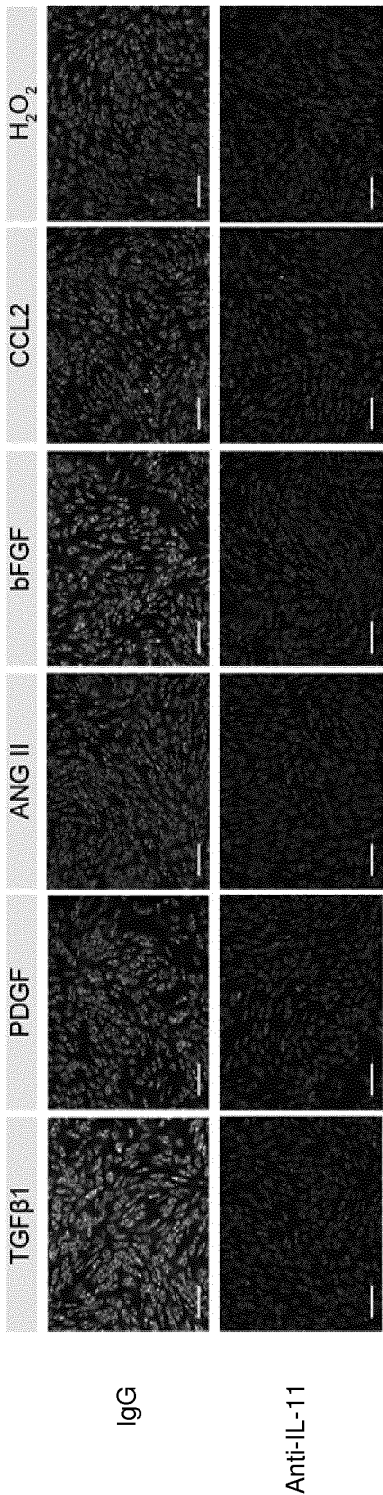


Figure 41B

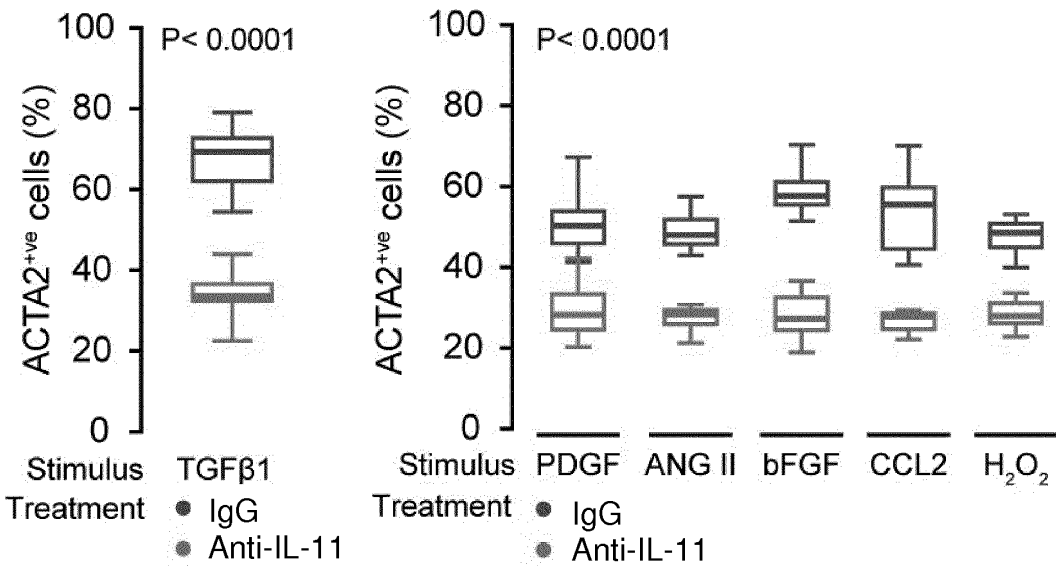


Figure 41C

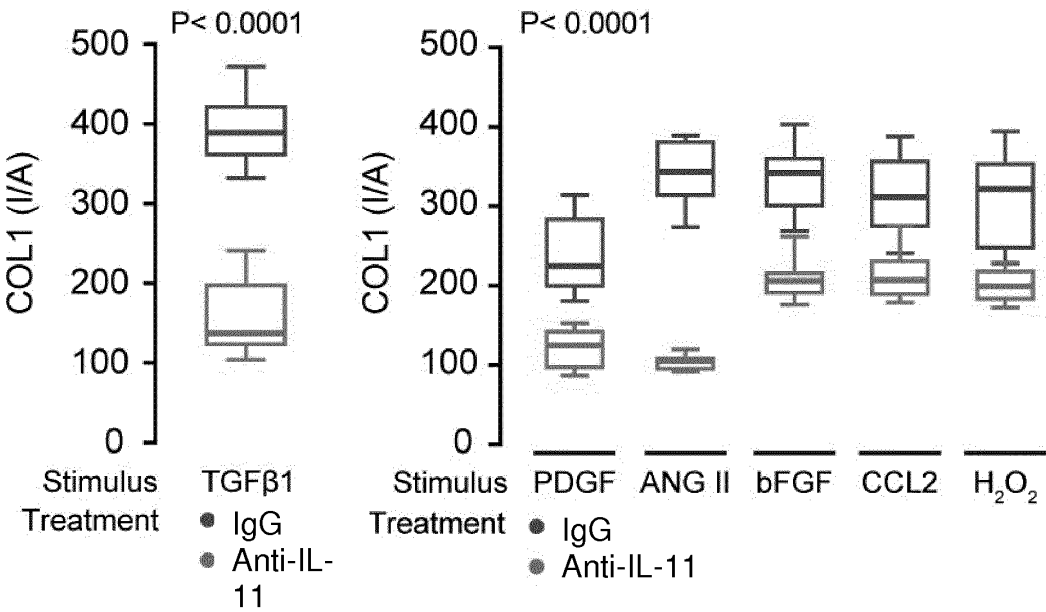


Figure 41D

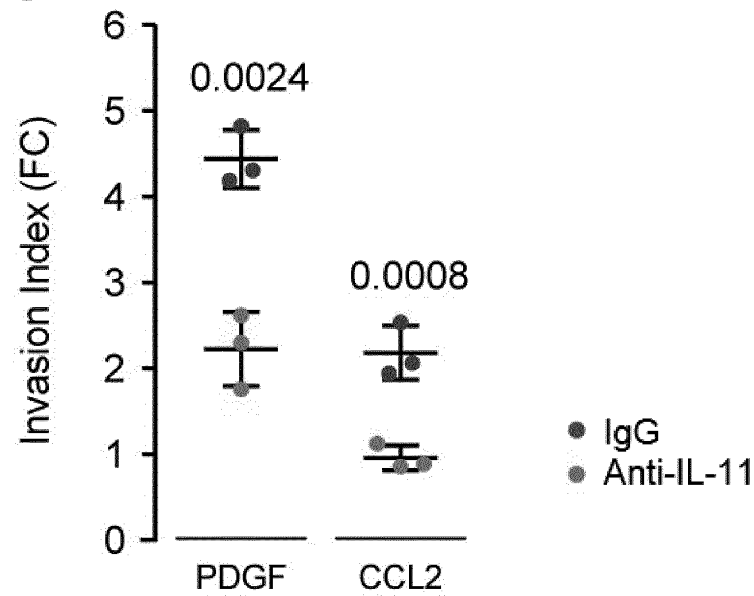


Figure 42

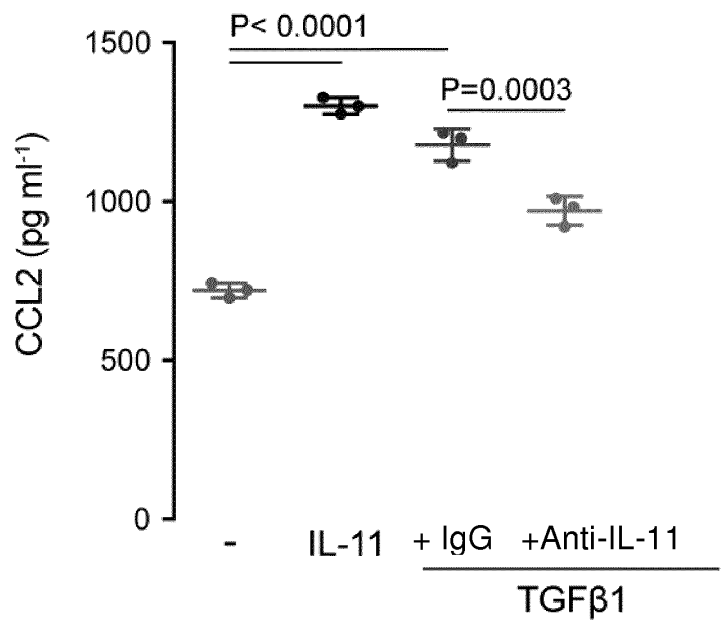


Figure 43

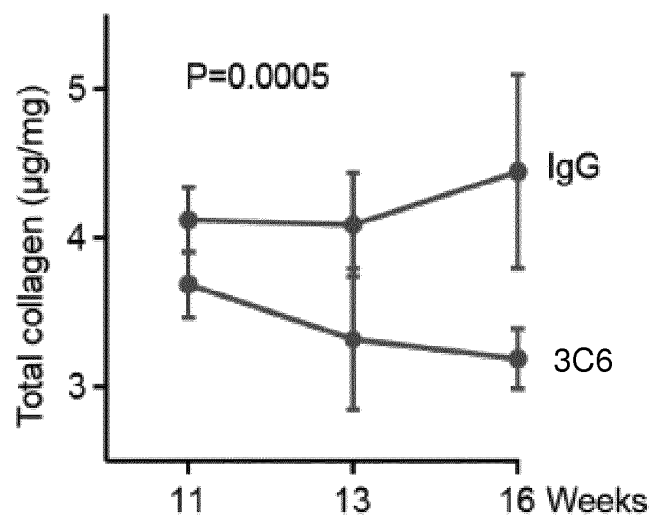


Figure 44A

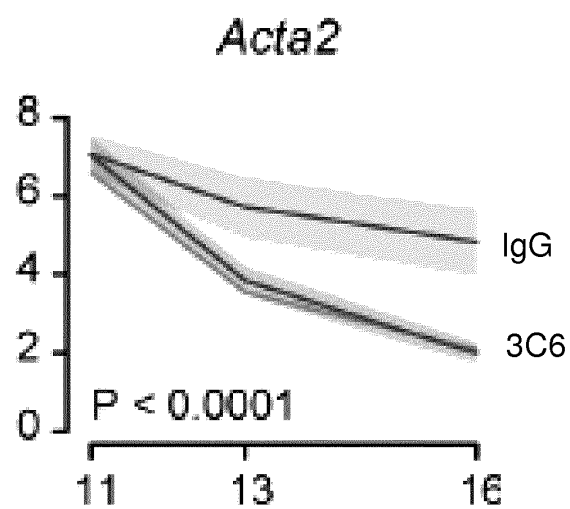


Figure 44B

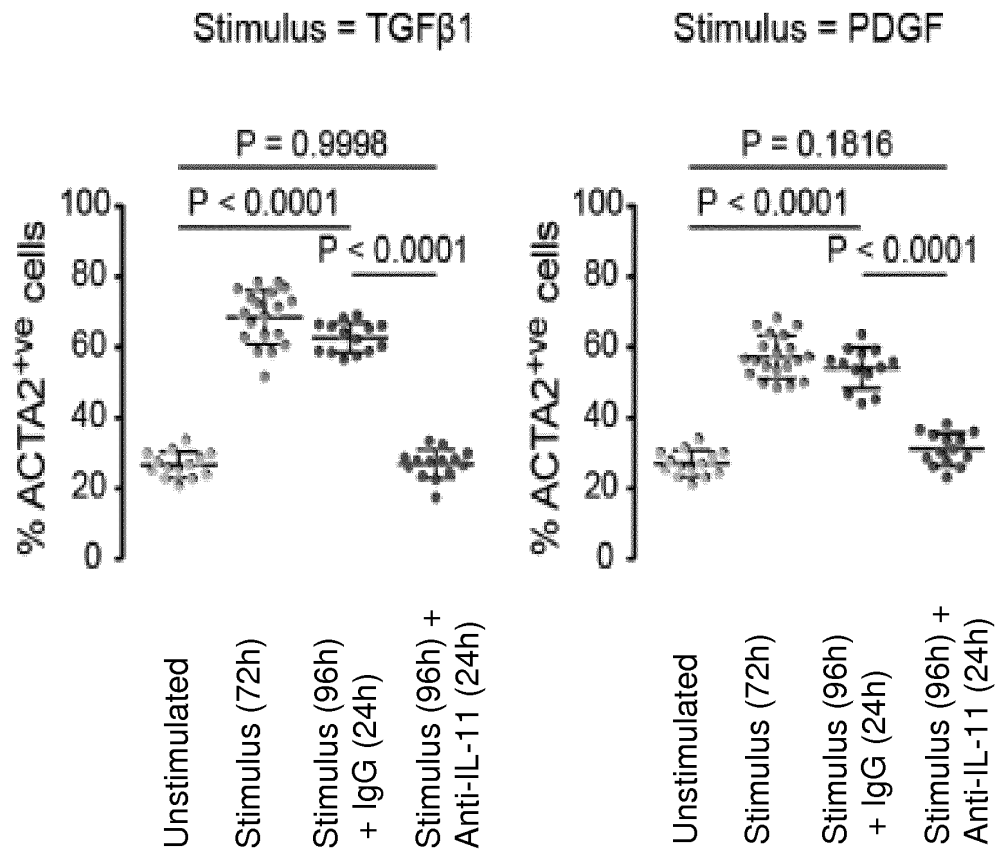


Figure 44C

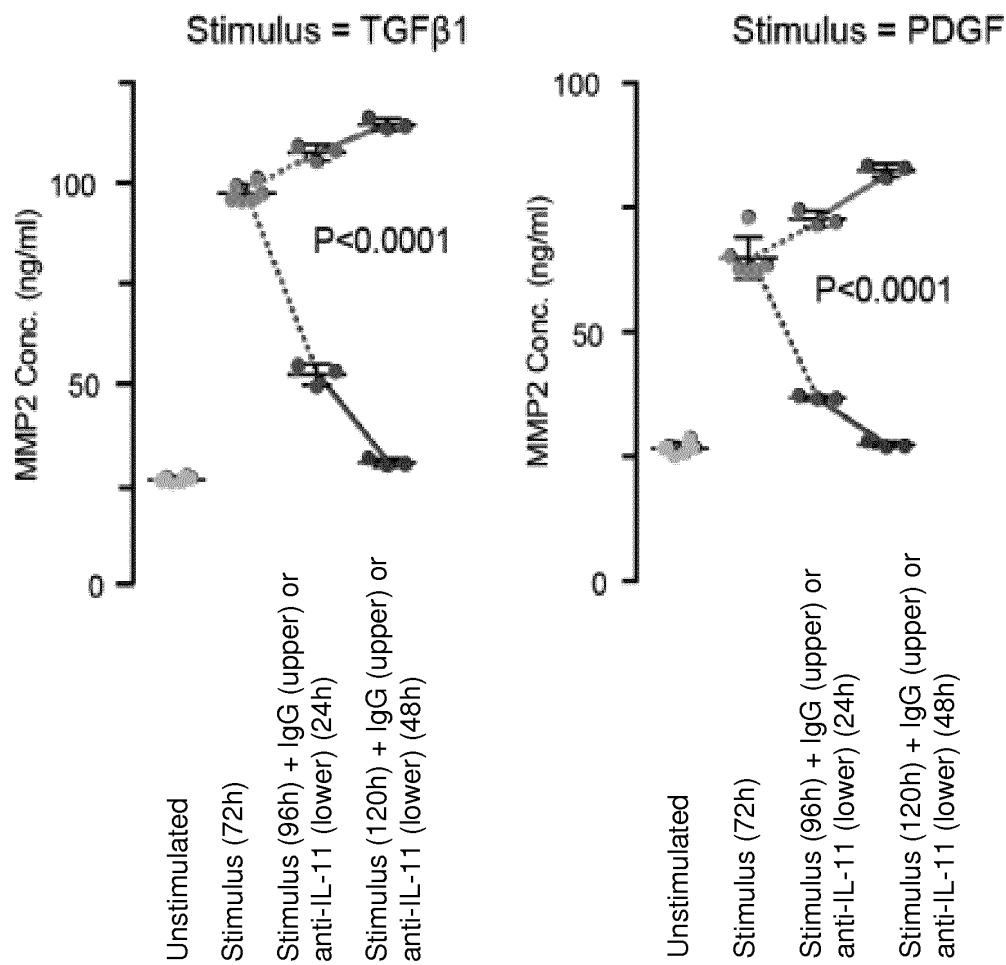


Figure 44D

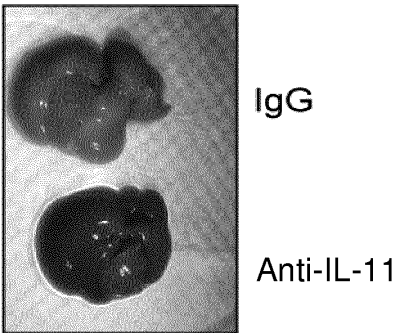


Figure 45A

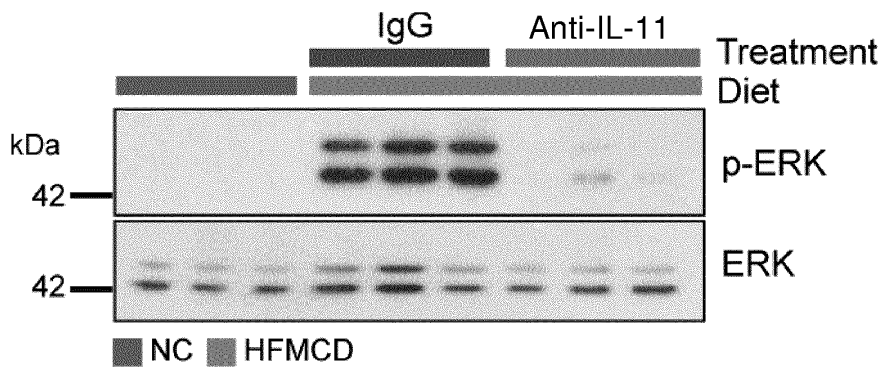


Figure 45B

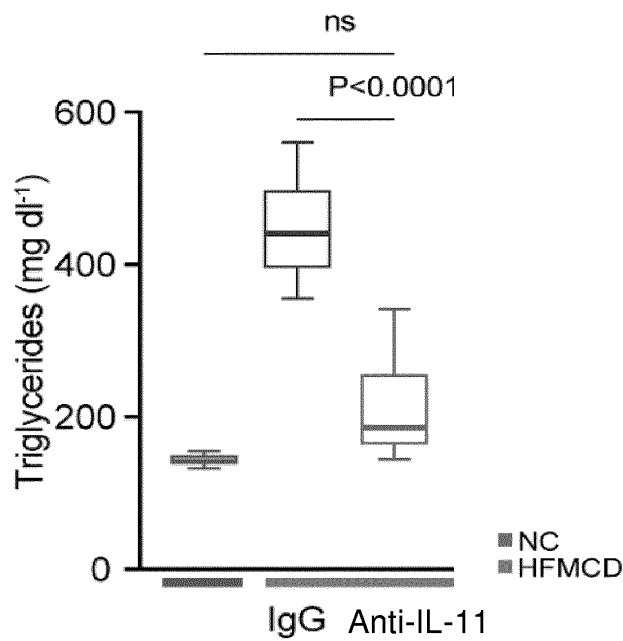


Figure 45C

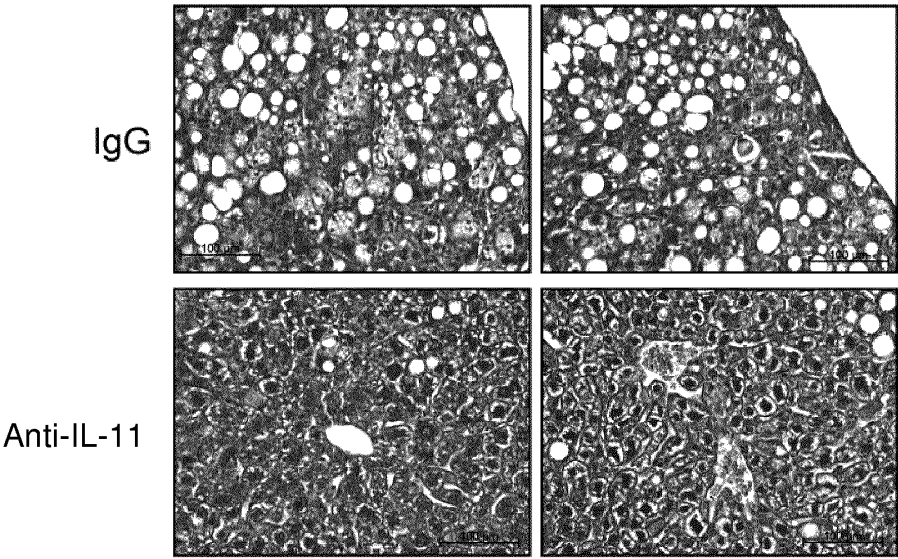


Figure 45D

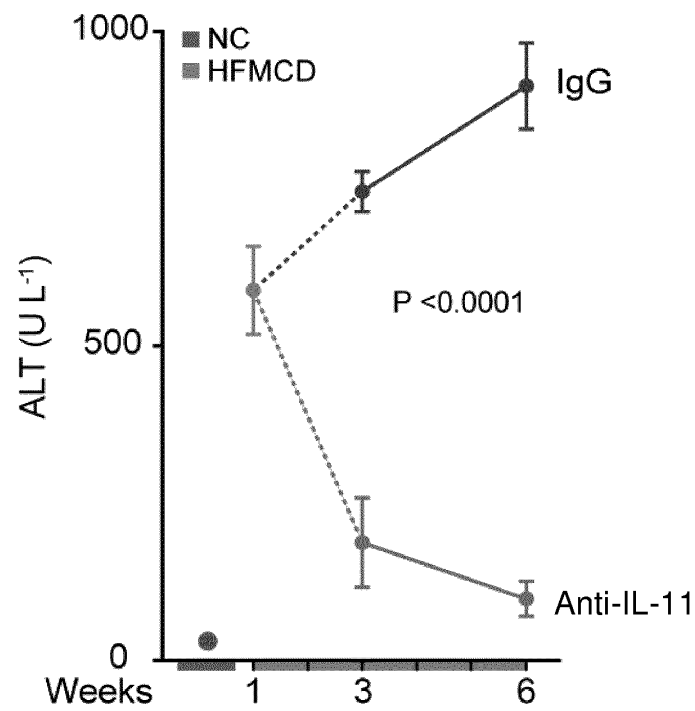


Figure 45E

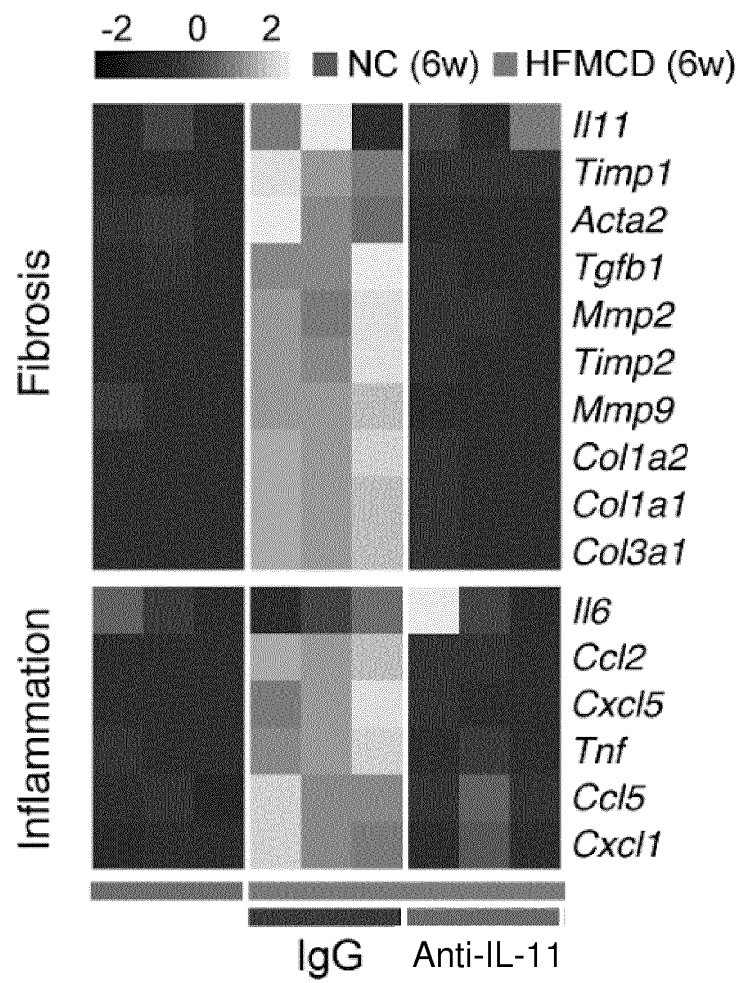


Figure 45F

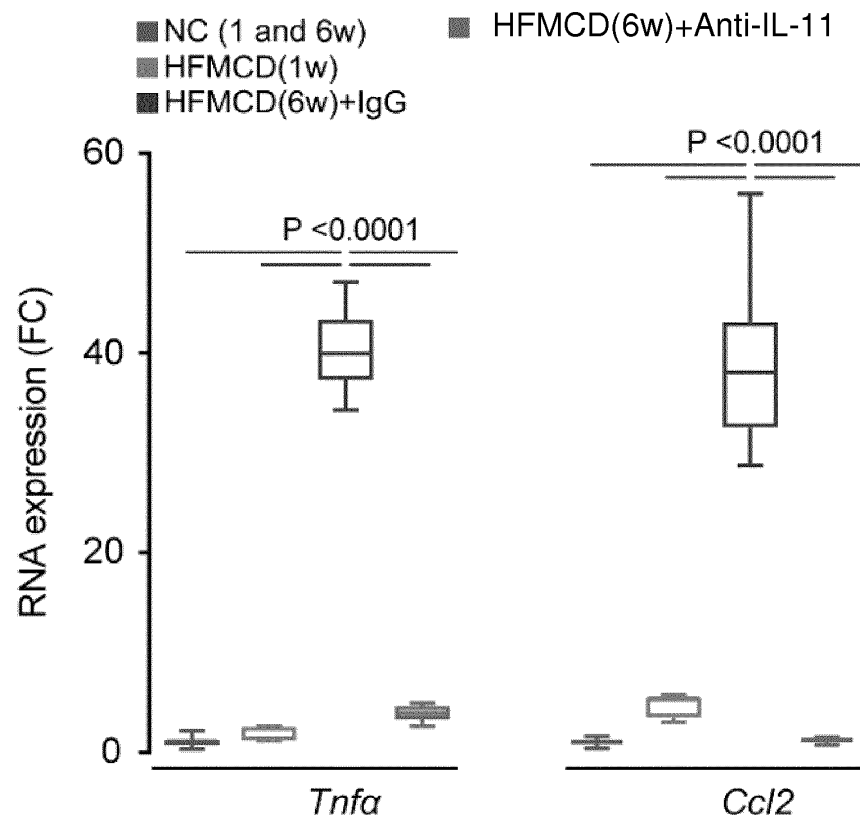


Figure 45G

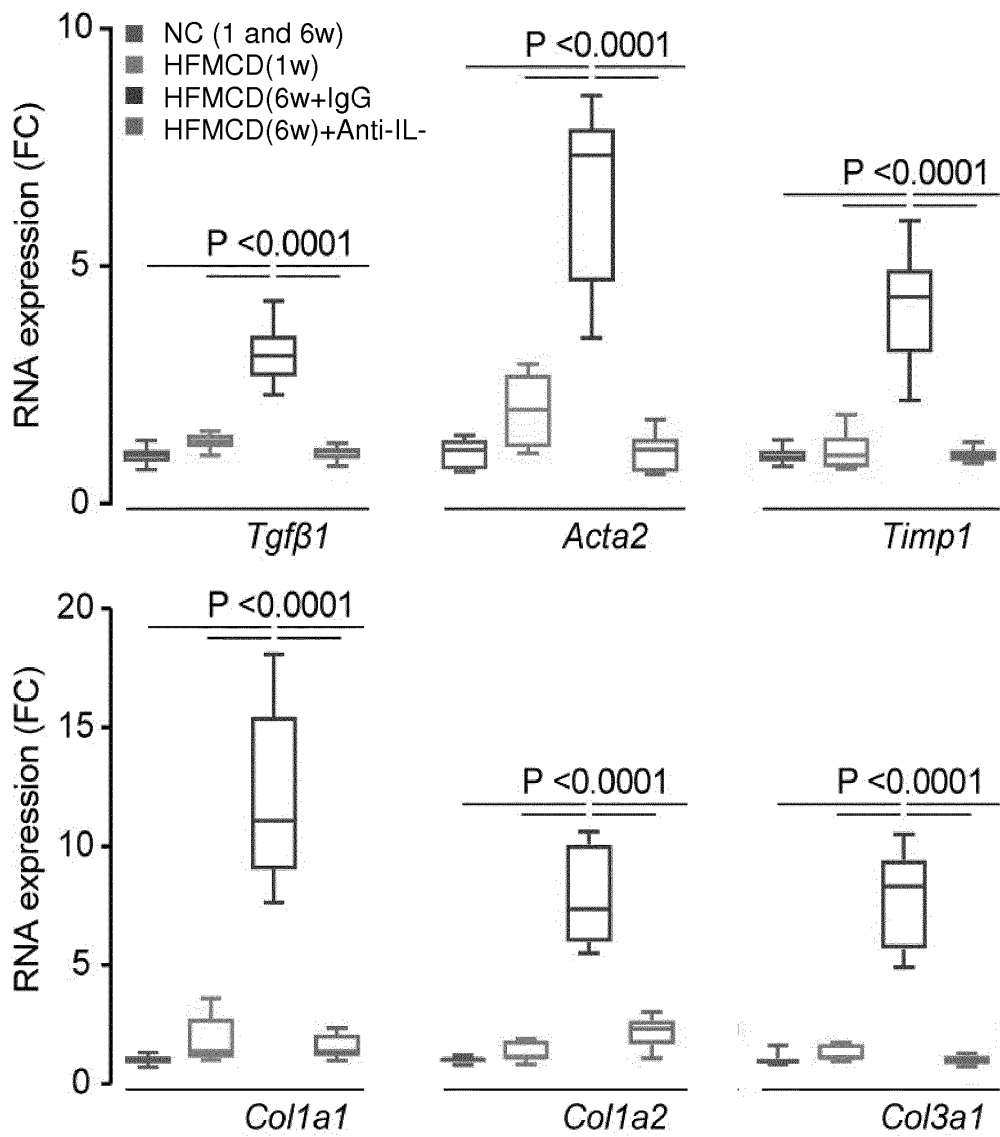


Figure 45H

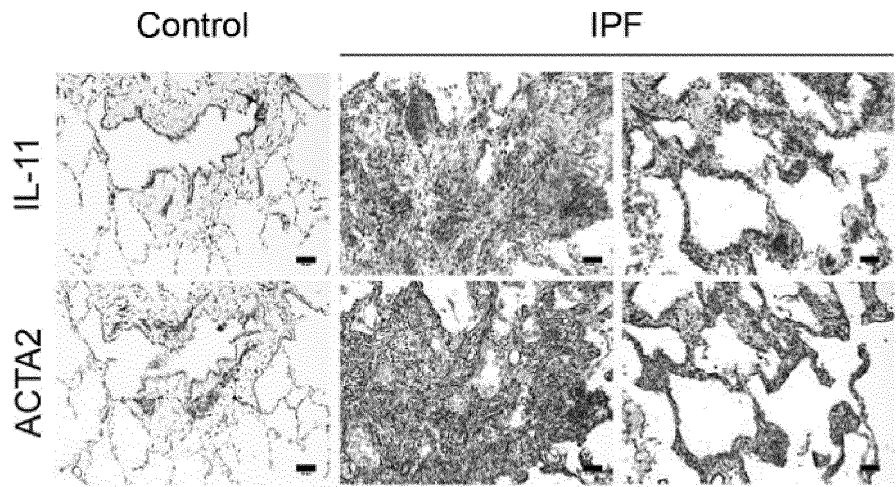


Figure 46A

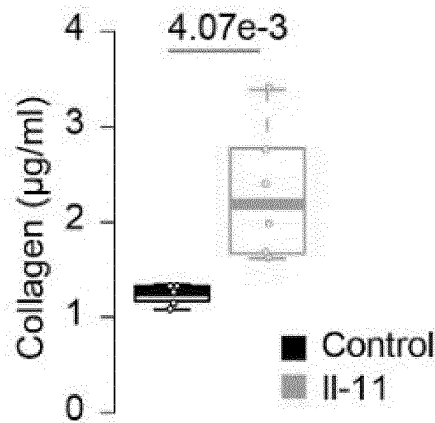


Figure 46B

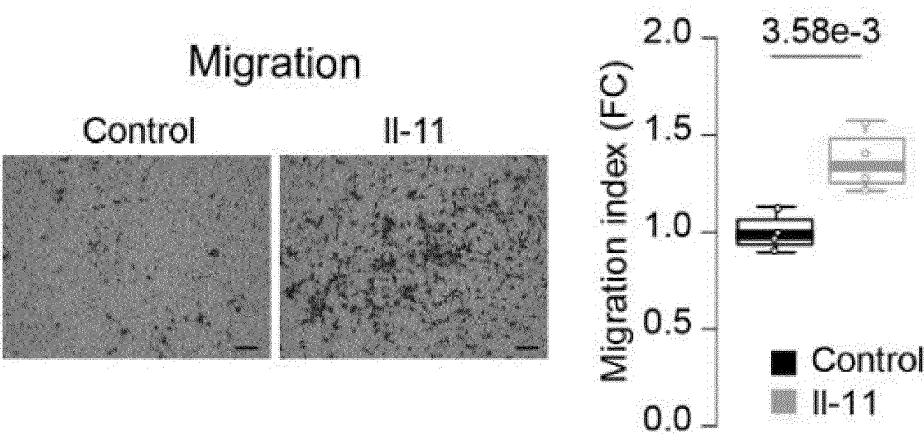


Figure 46C

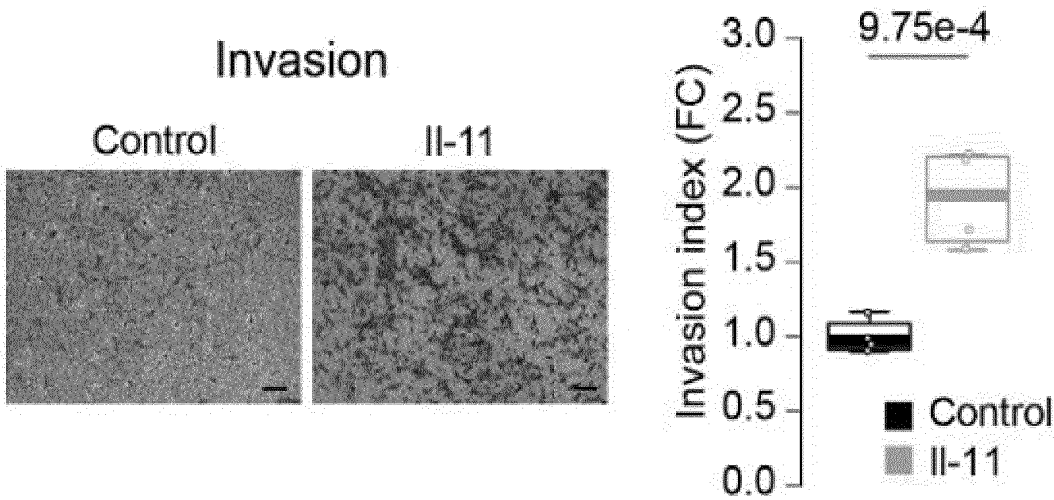


Figure 46D

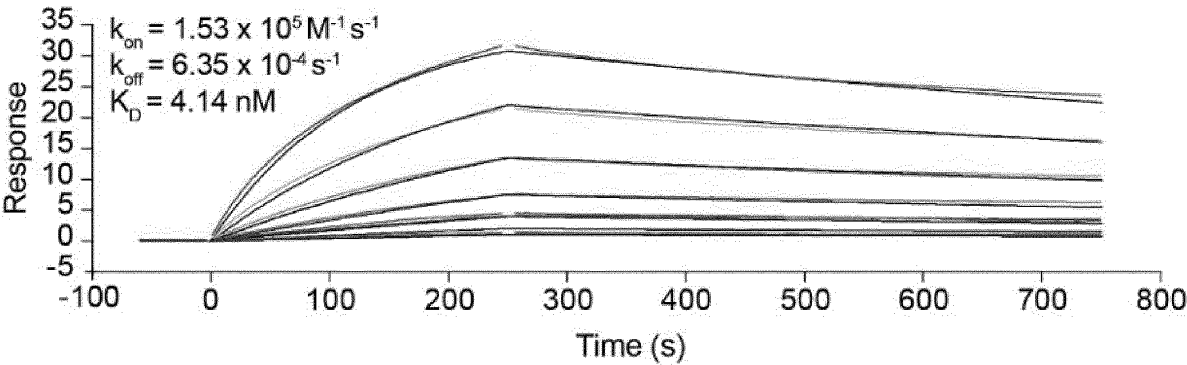


Figure 47A

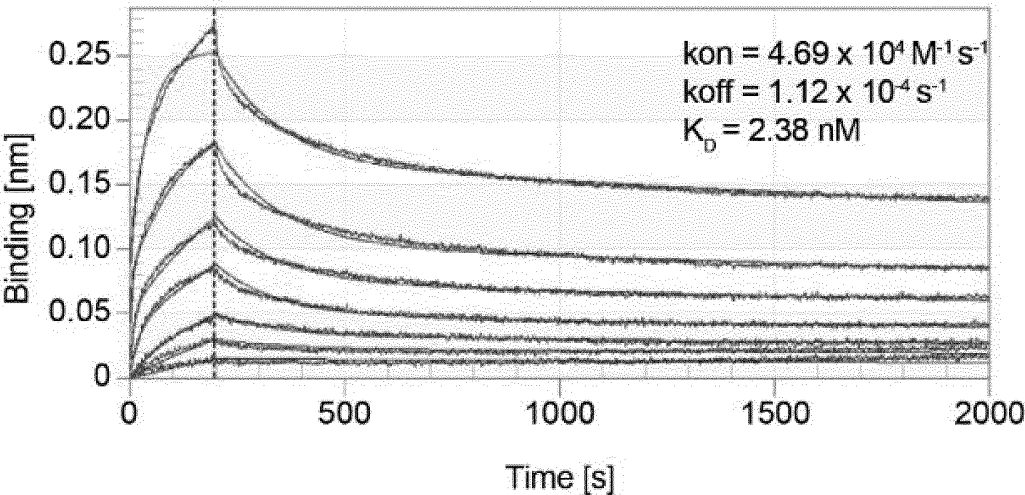


Figure 47B

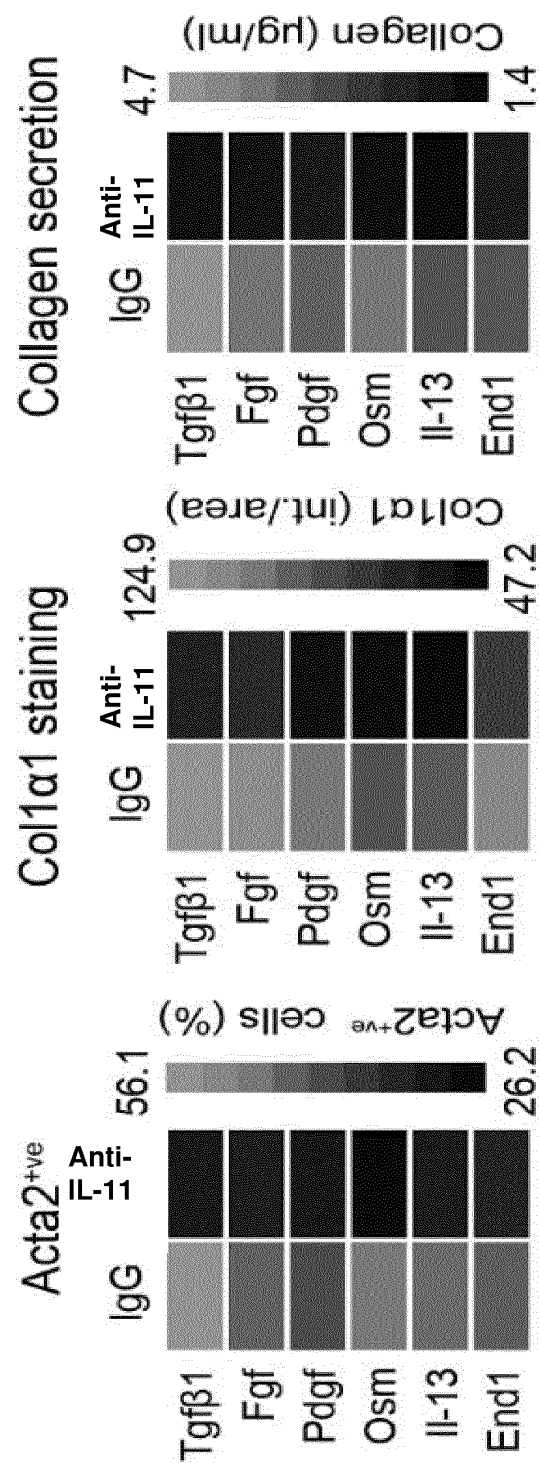


Figure 48A

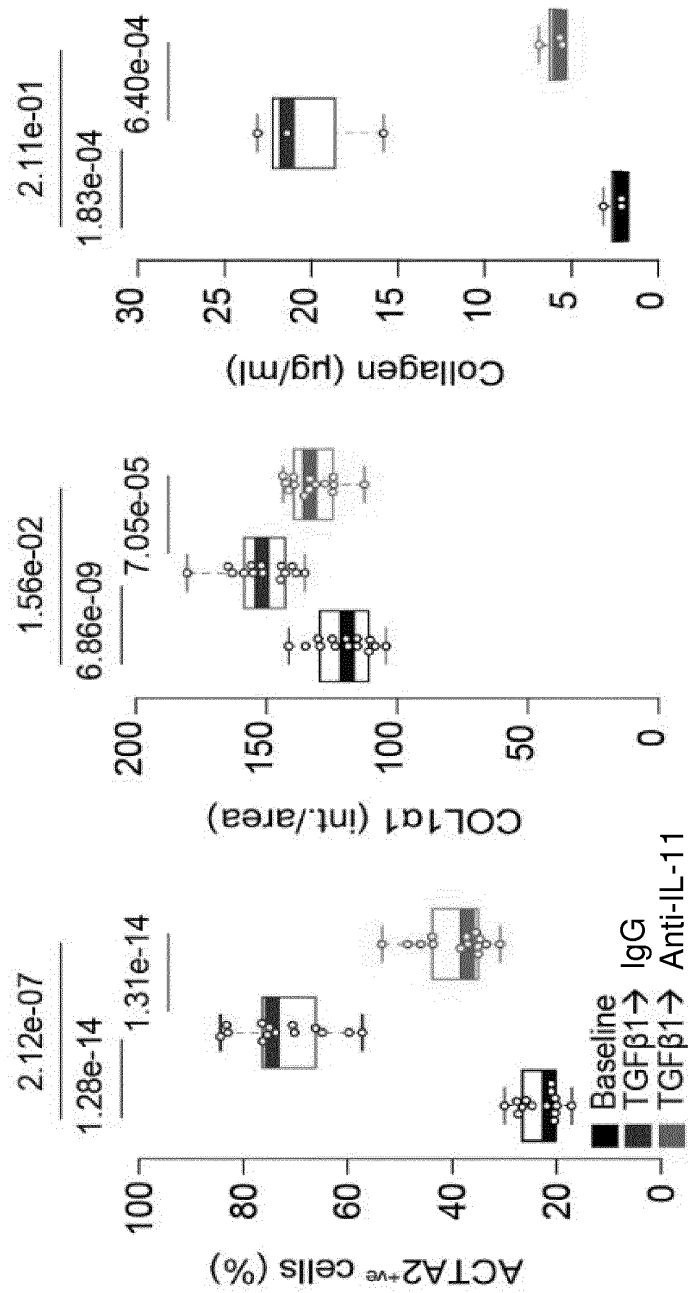


Figure 48B

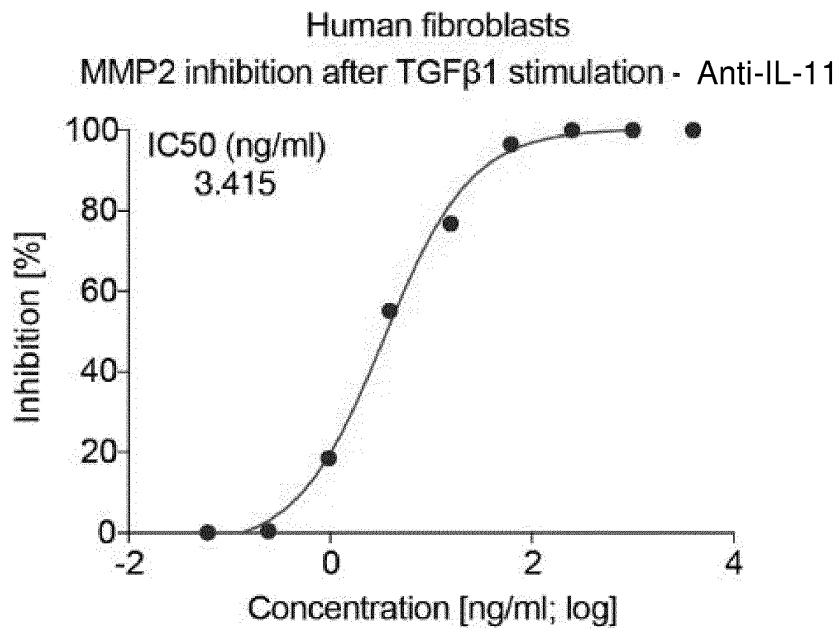


Figure 48C

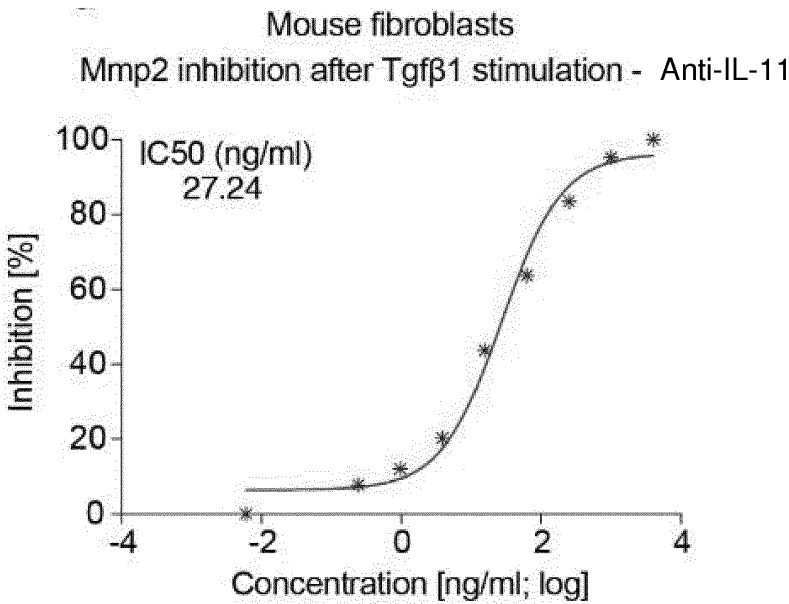


Figure 48D

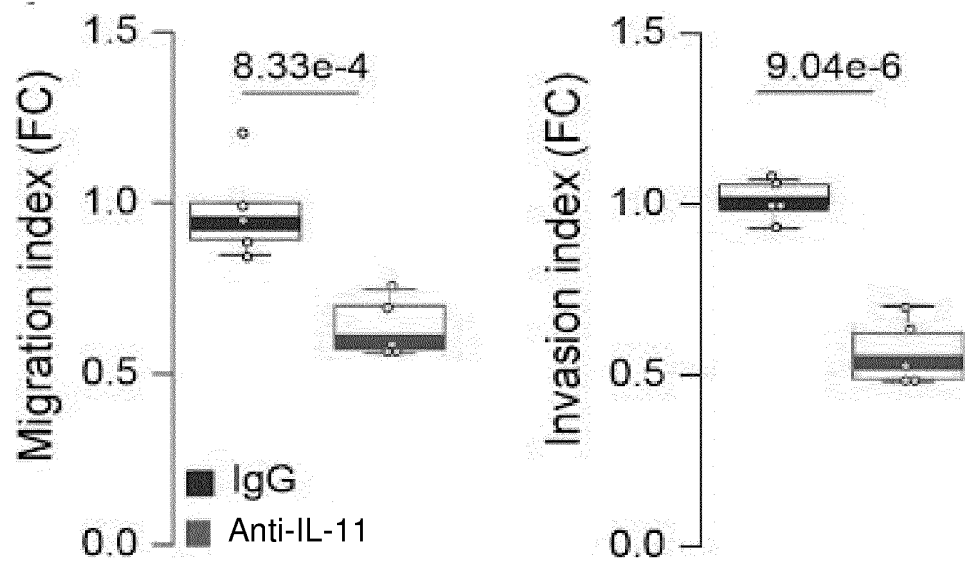


Figure 48E

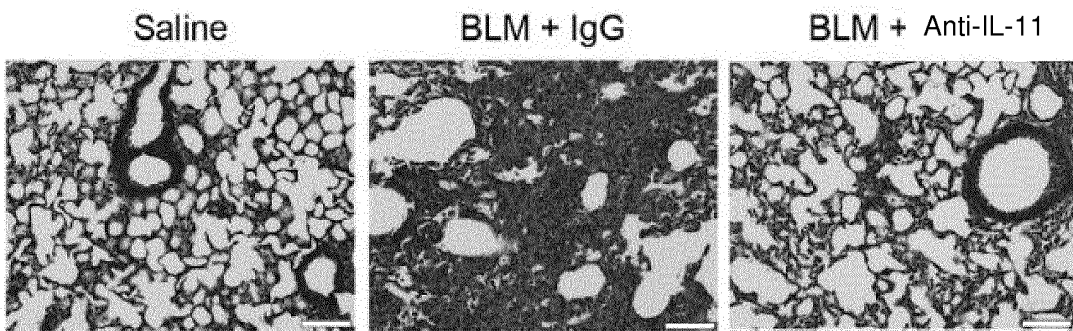


Figure 49A

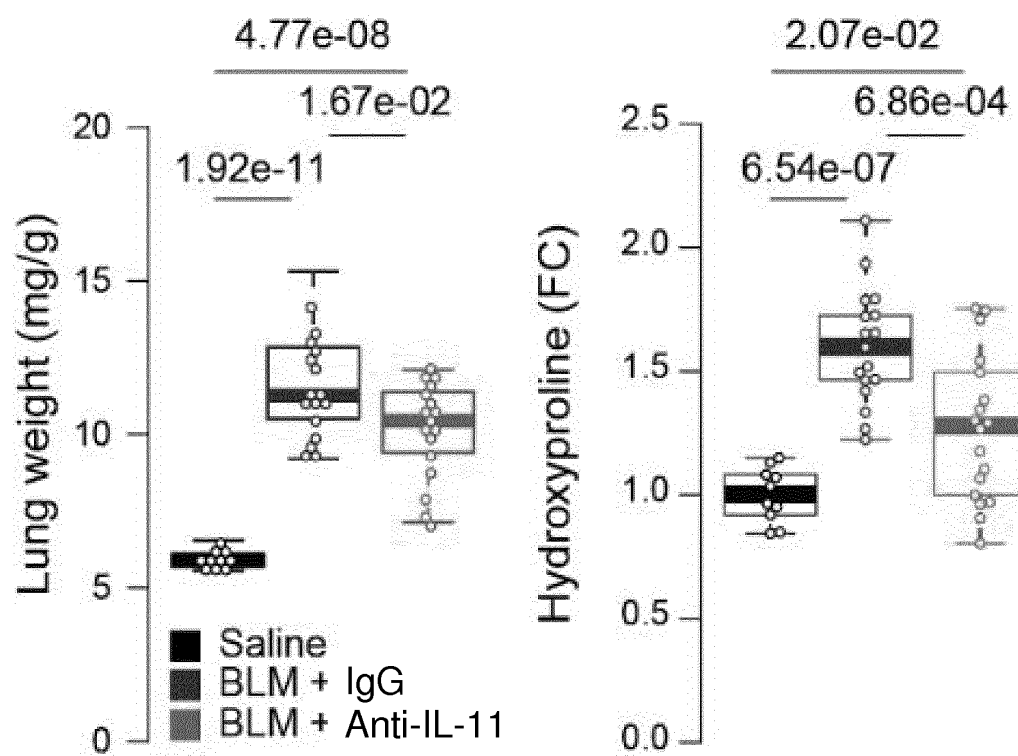


Figure 49B

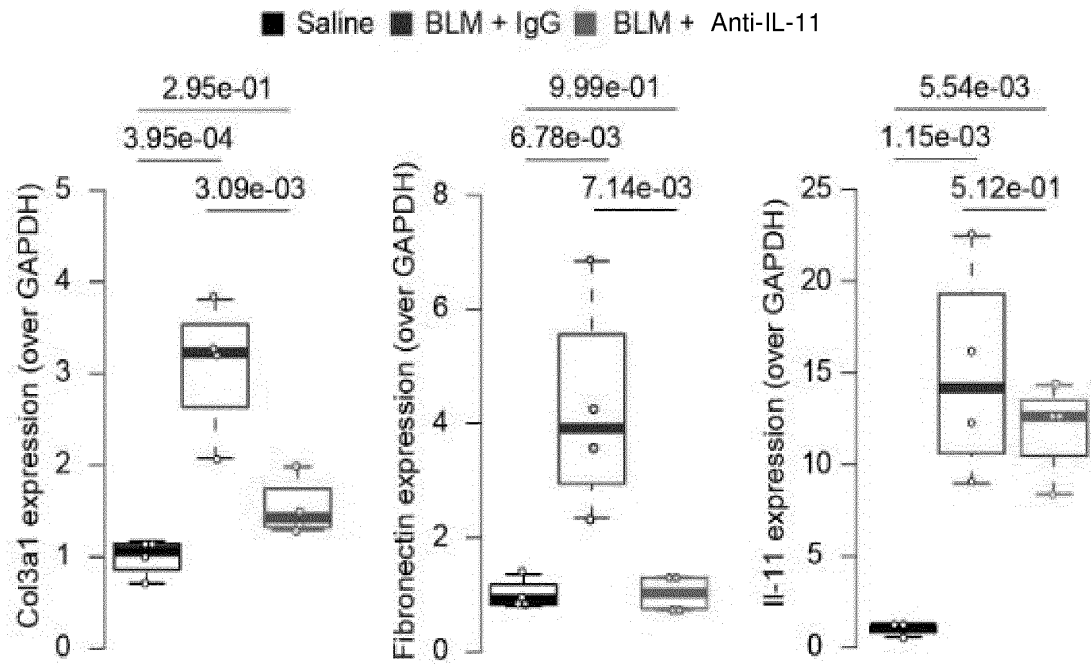


Figure 49C

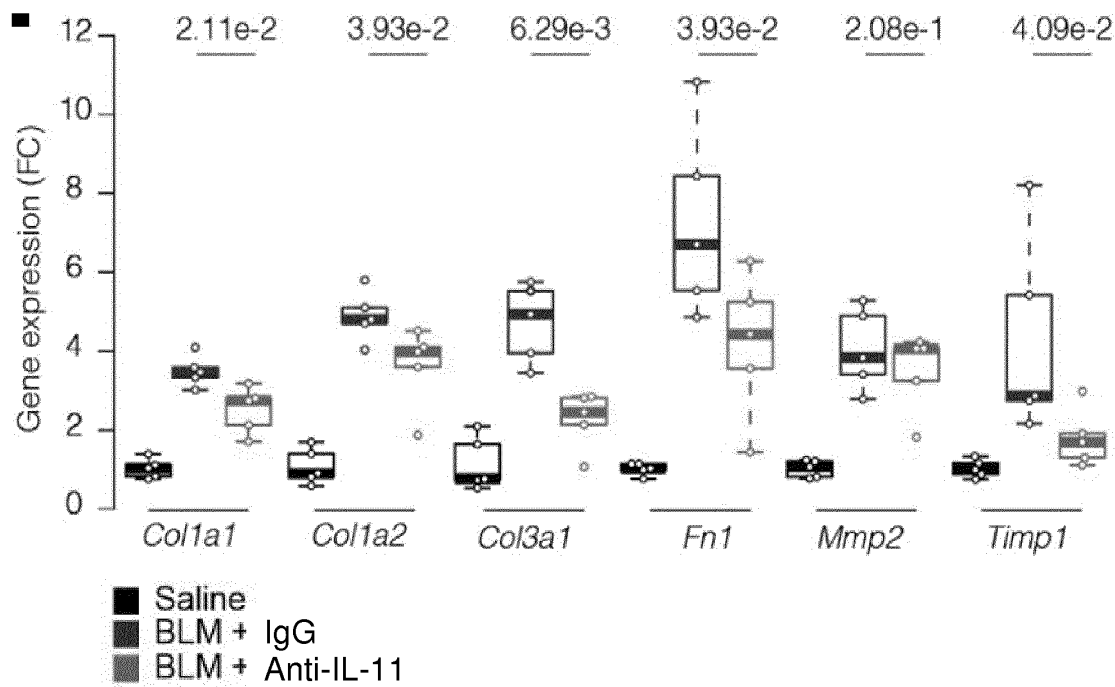


Figure 49D

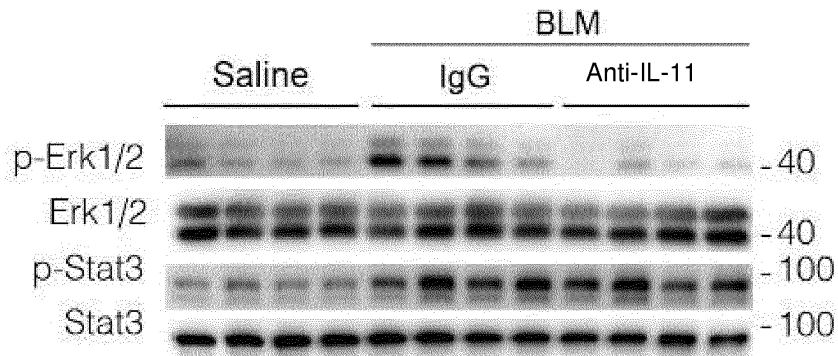


Figure 49E

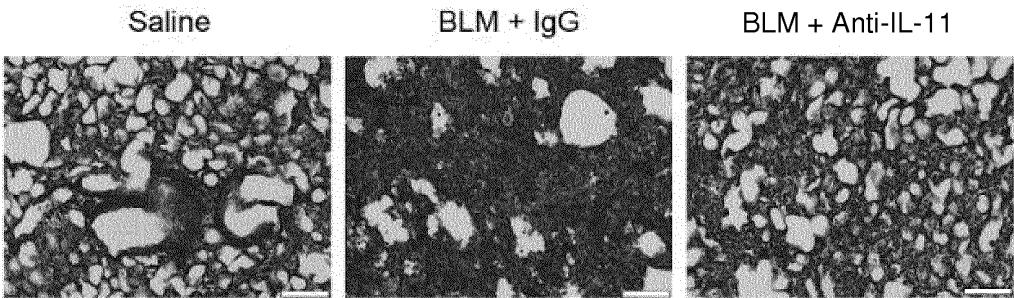


Figure 50A

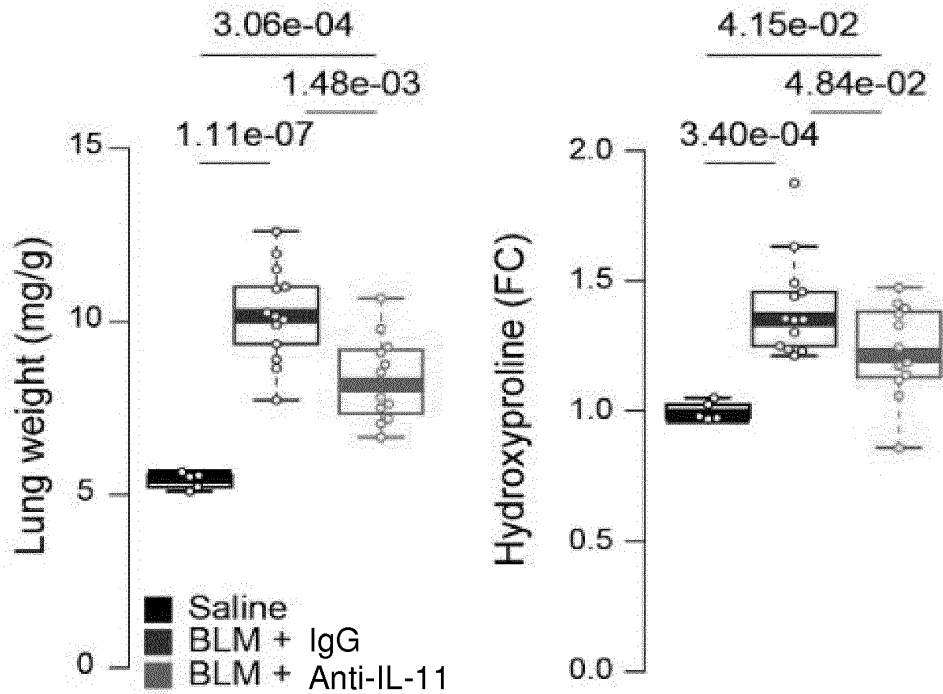


Figure 50B

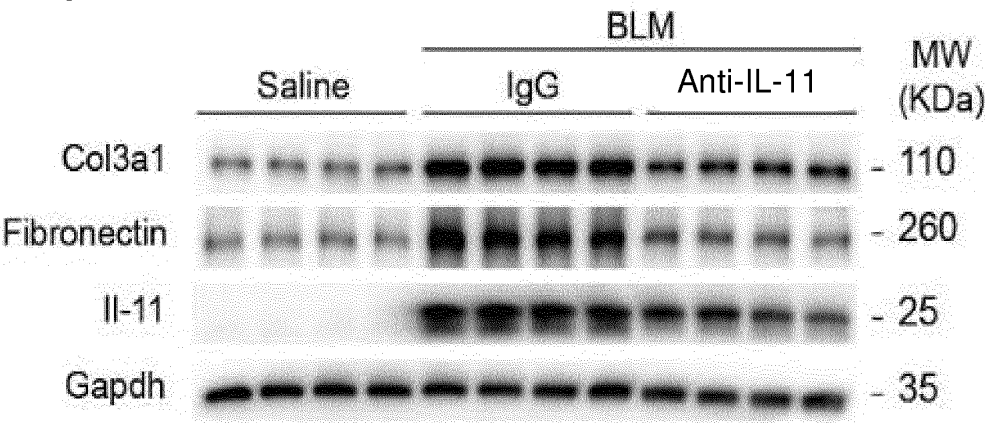


Figure 50C

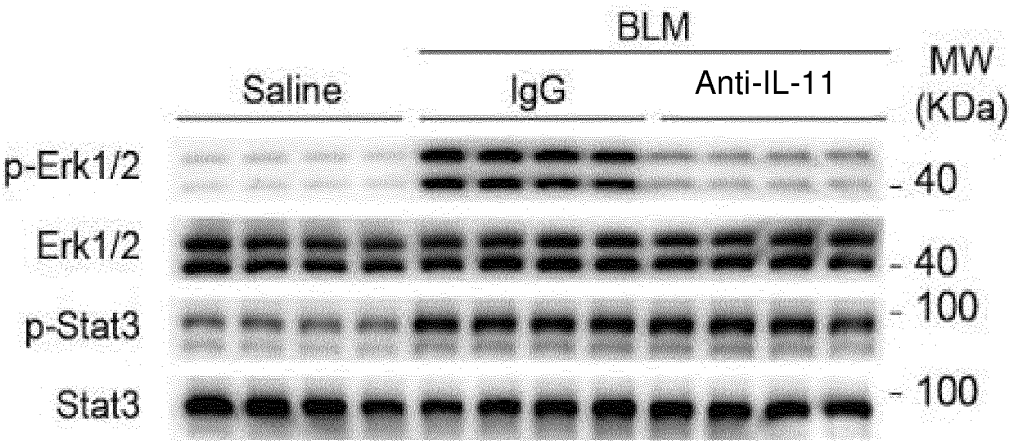


Figure 50D

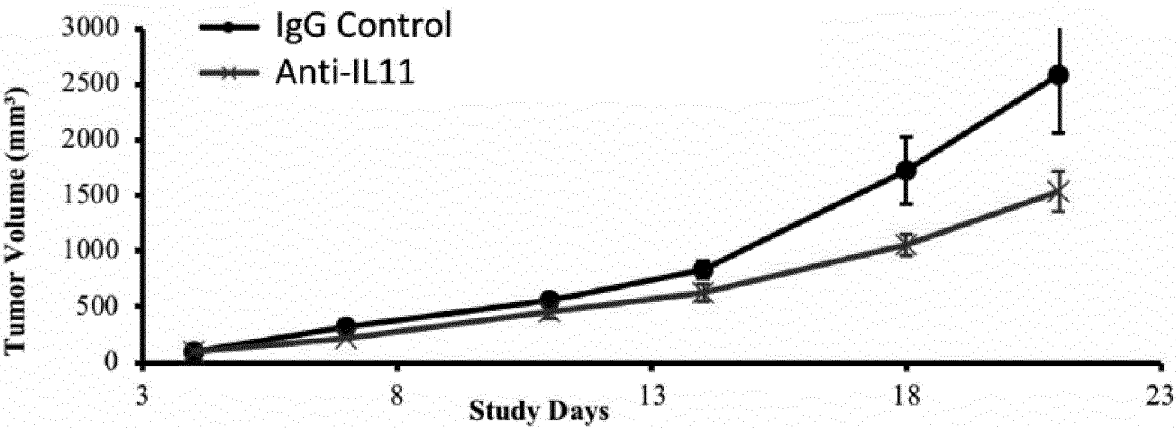


Figure 51A

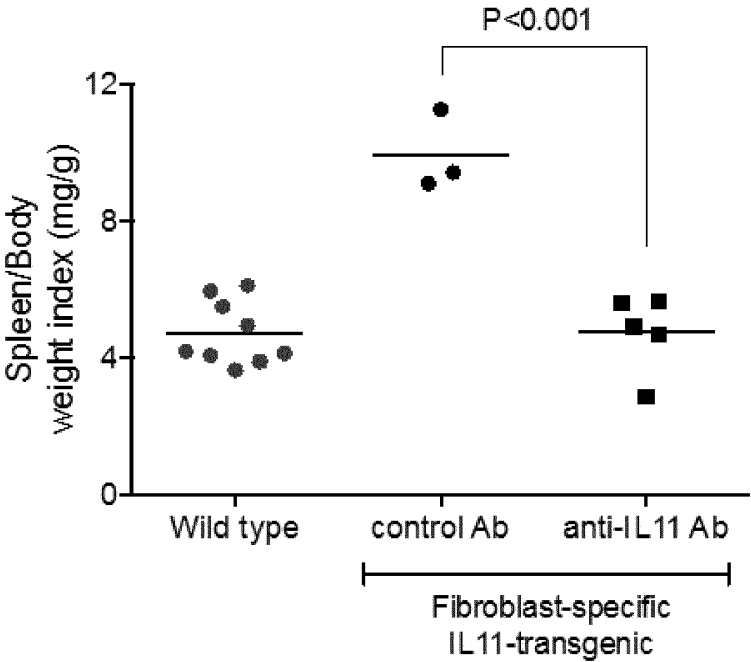


Figure 51B

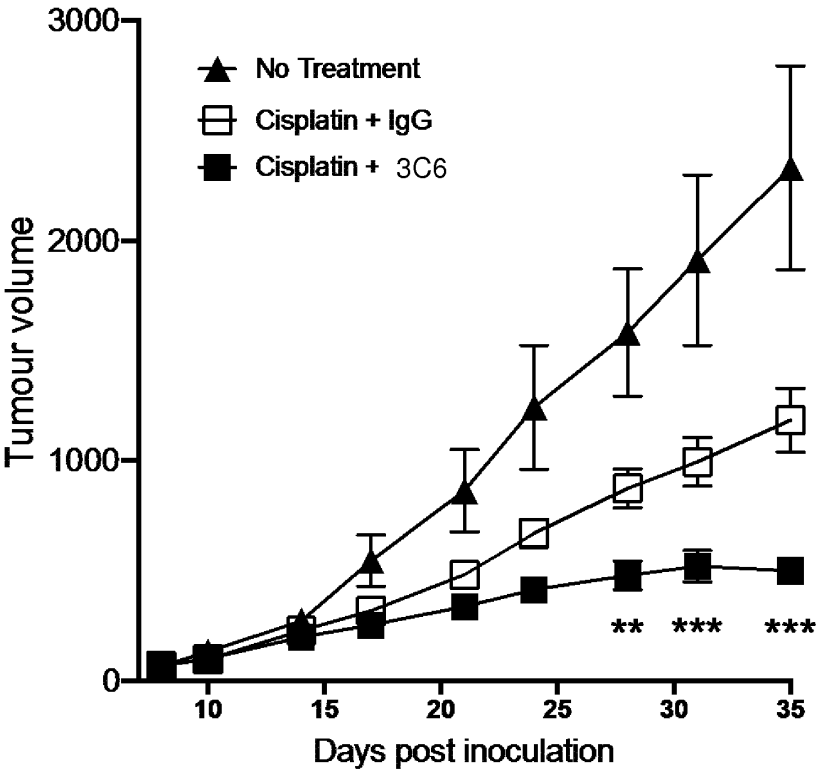


Figure 51C

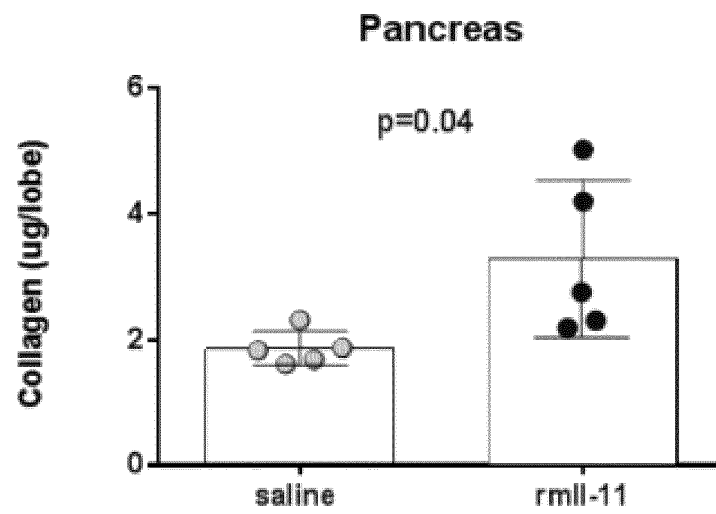


Figure 52

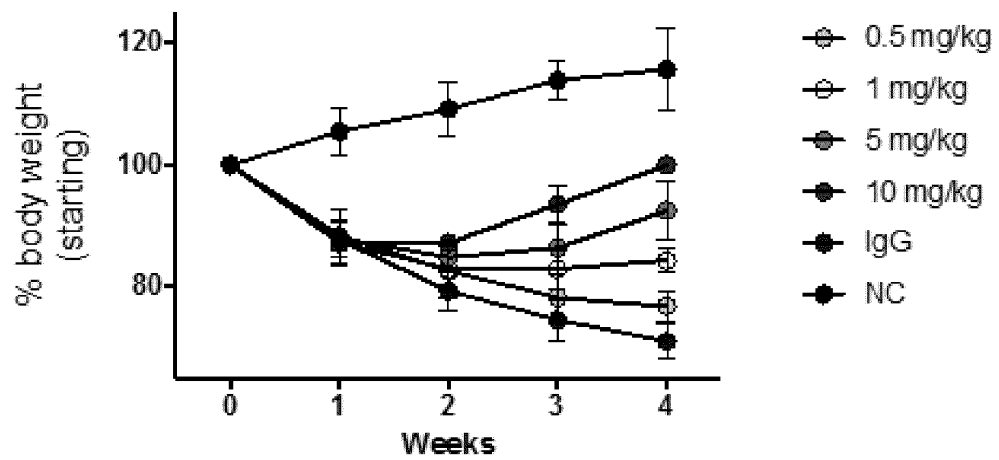


Figure 53A

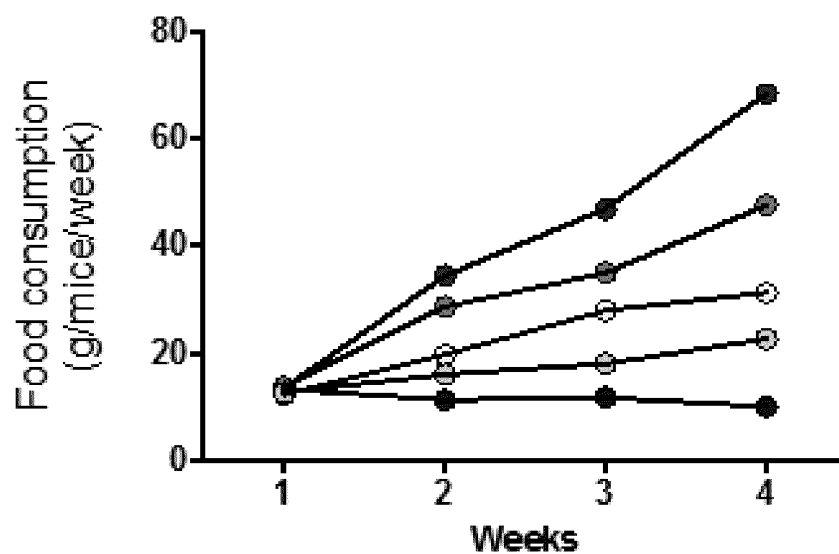


Figure 53A (continued)

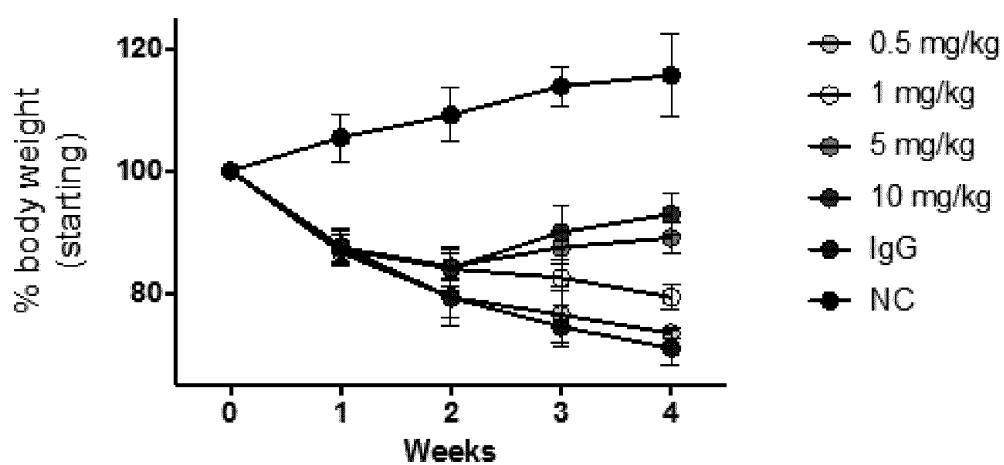


Figure 53B

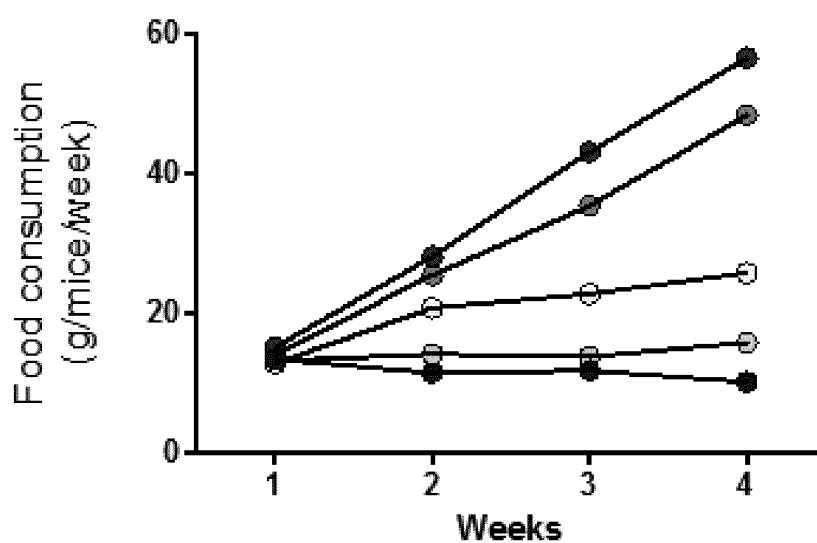


Figure 53B (continued)

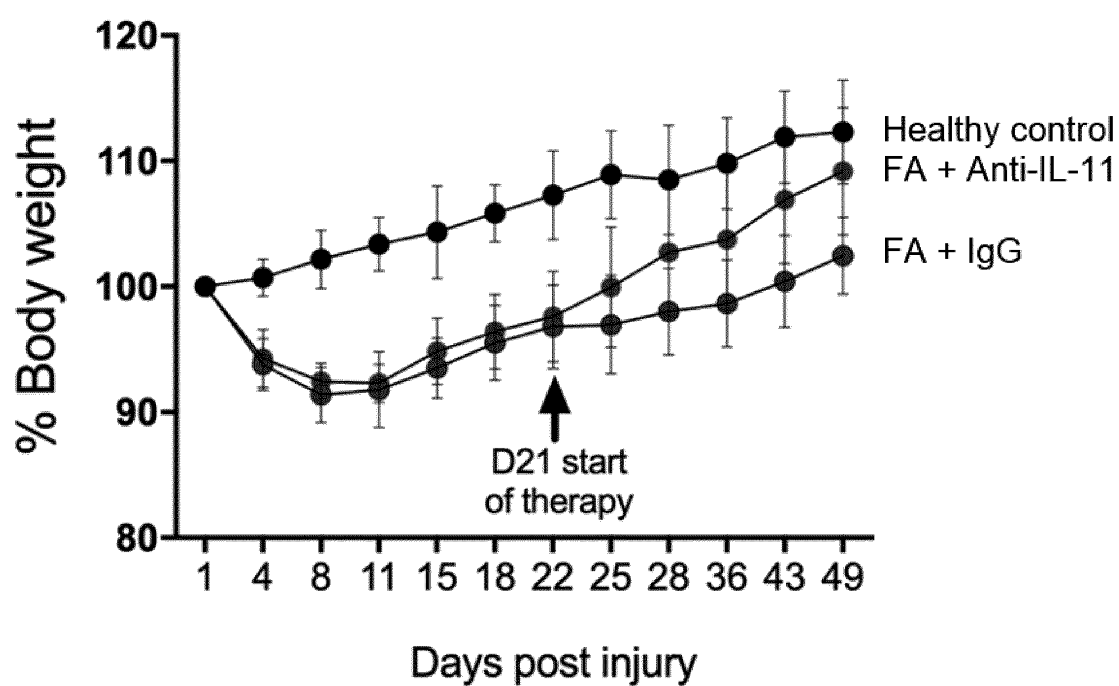


Figure 53C

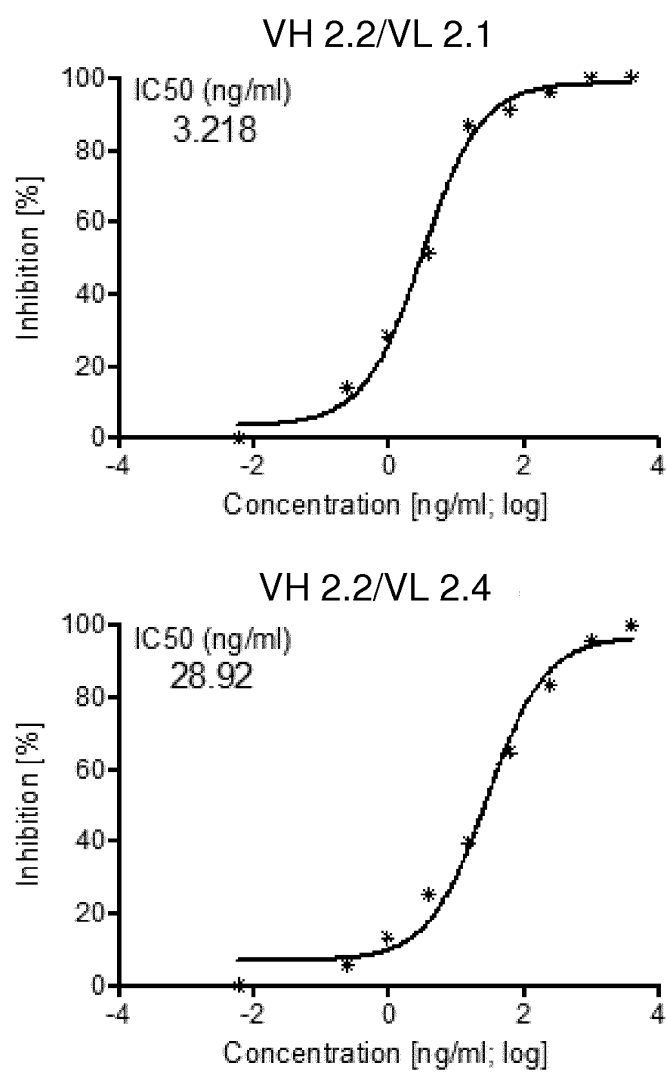


Figure 54A

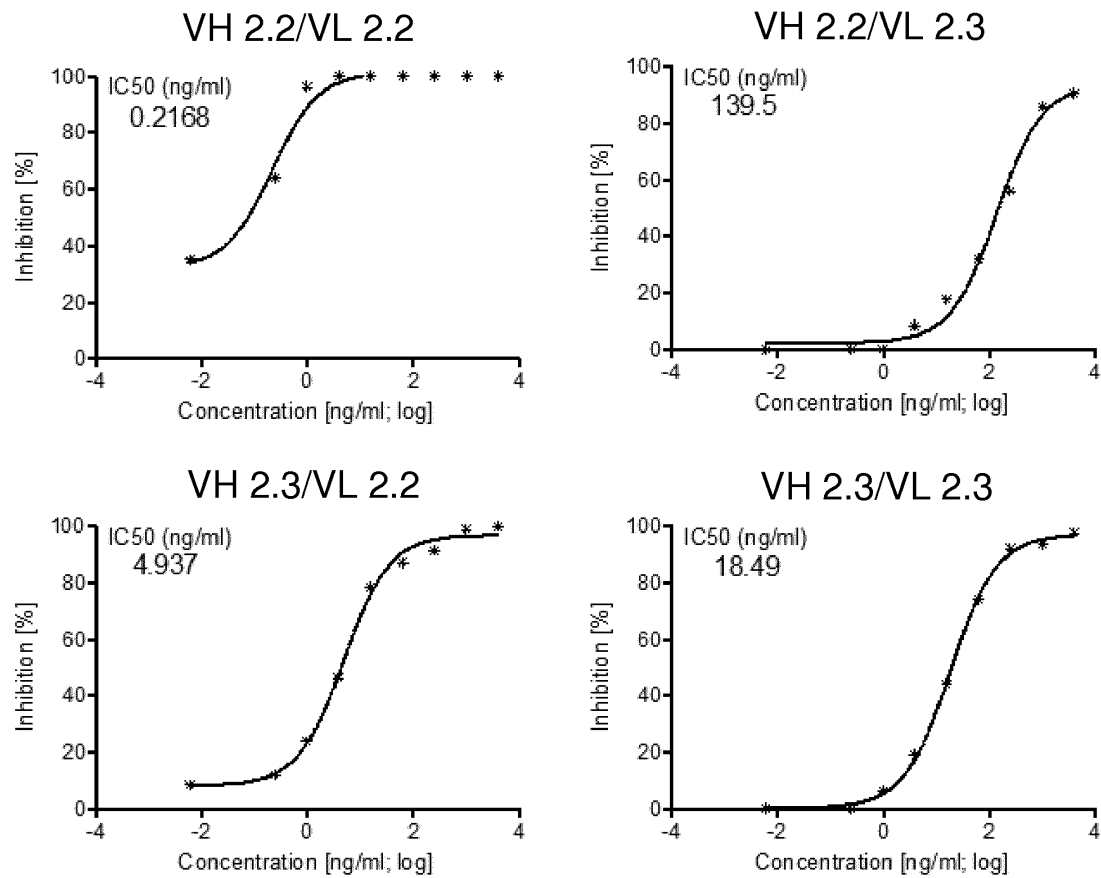


Figure 54A (continued)

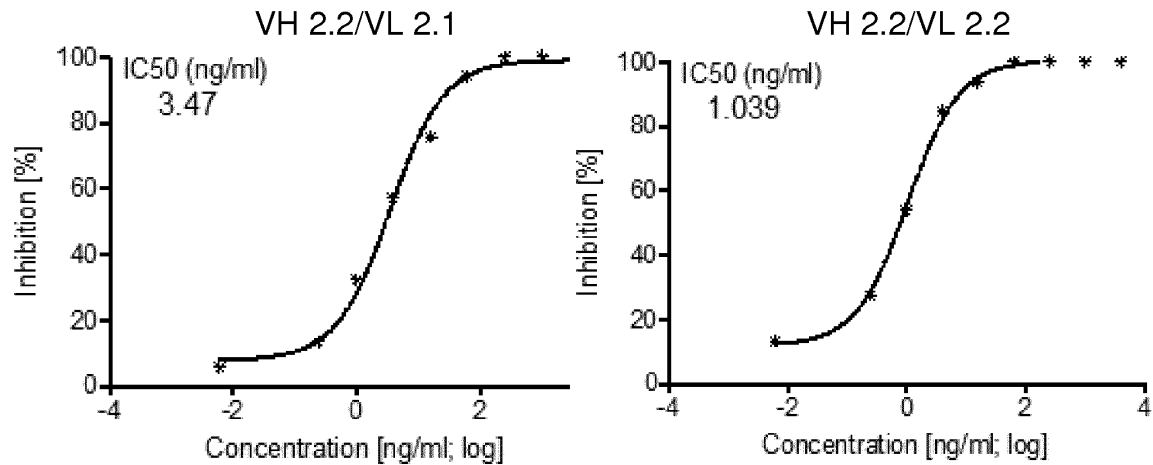


Figure 54B

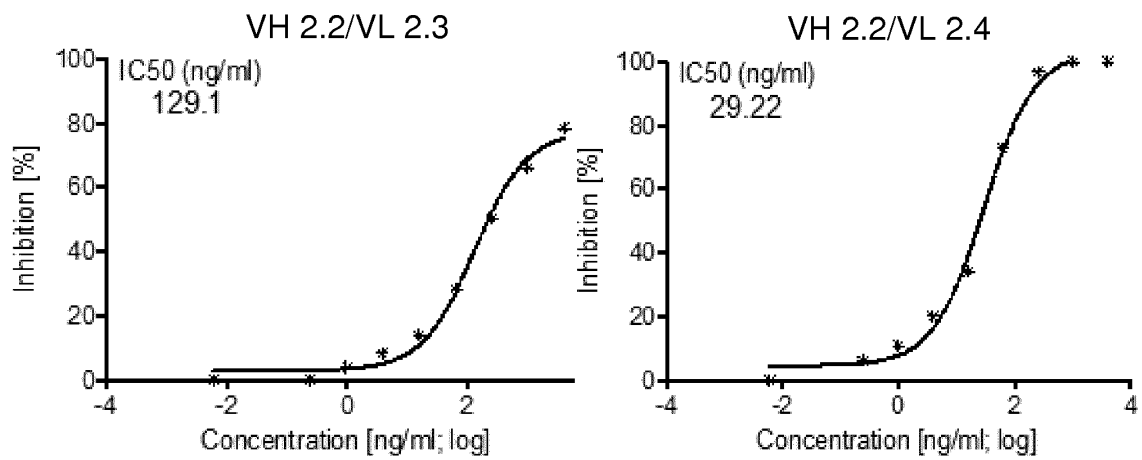


Figure 54B (continued)

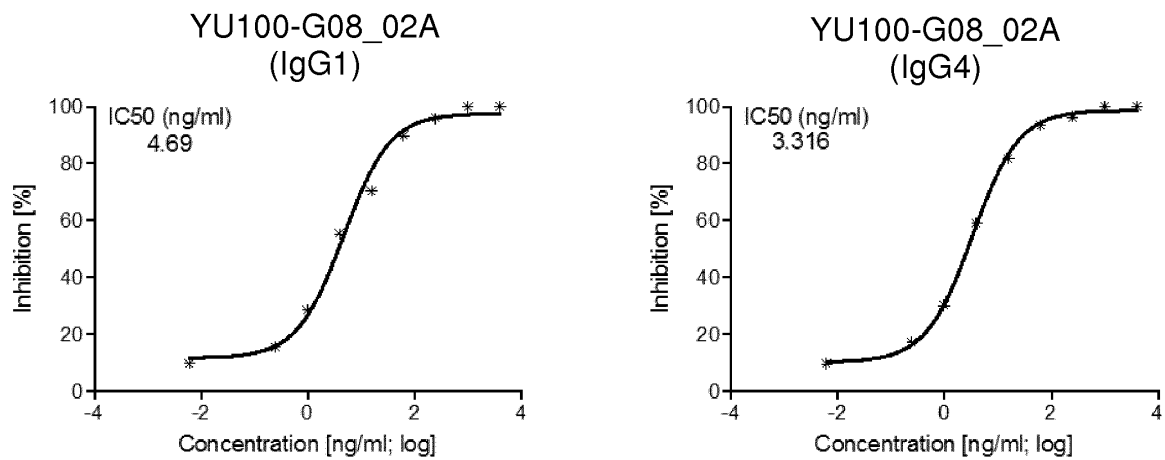


Figure 55A

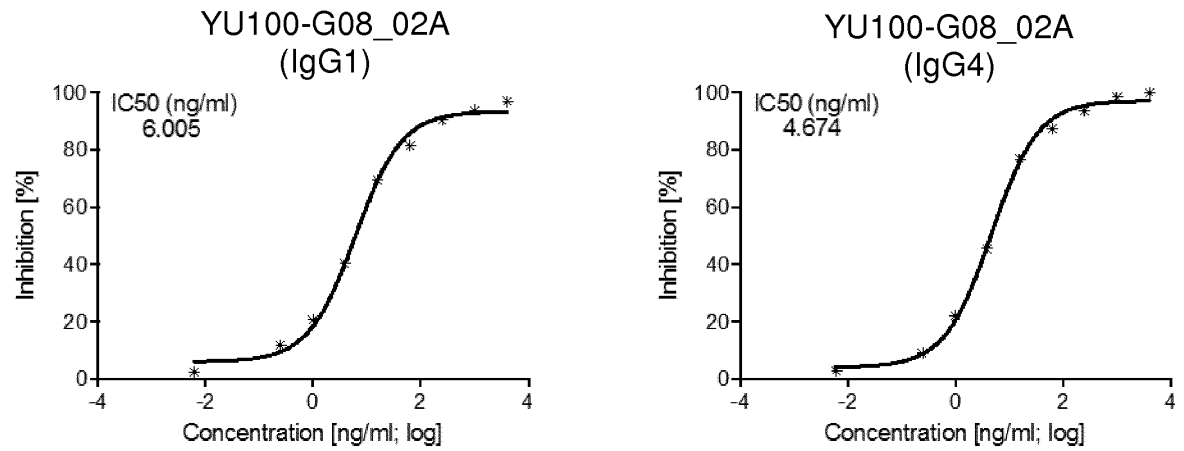


Figure 55B

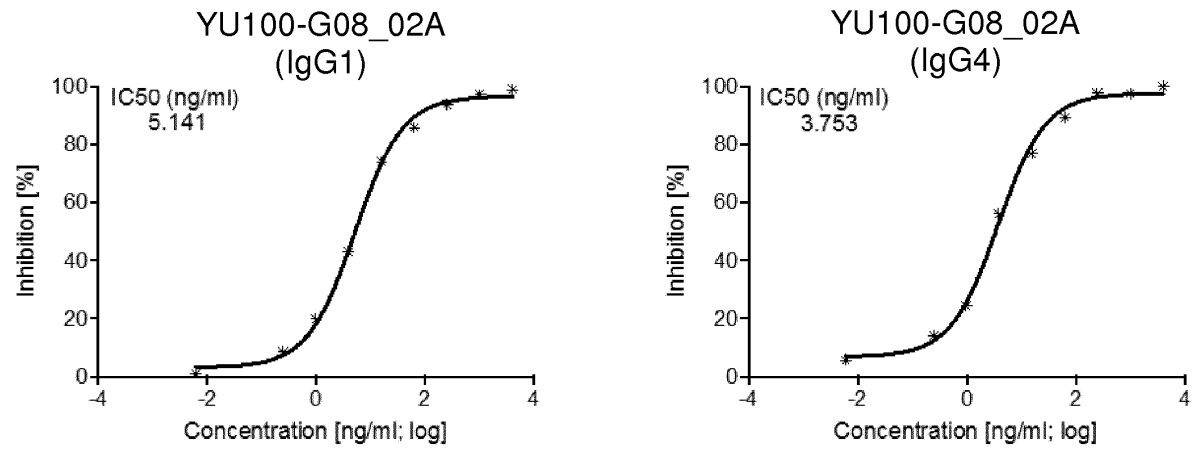


Figure 55C

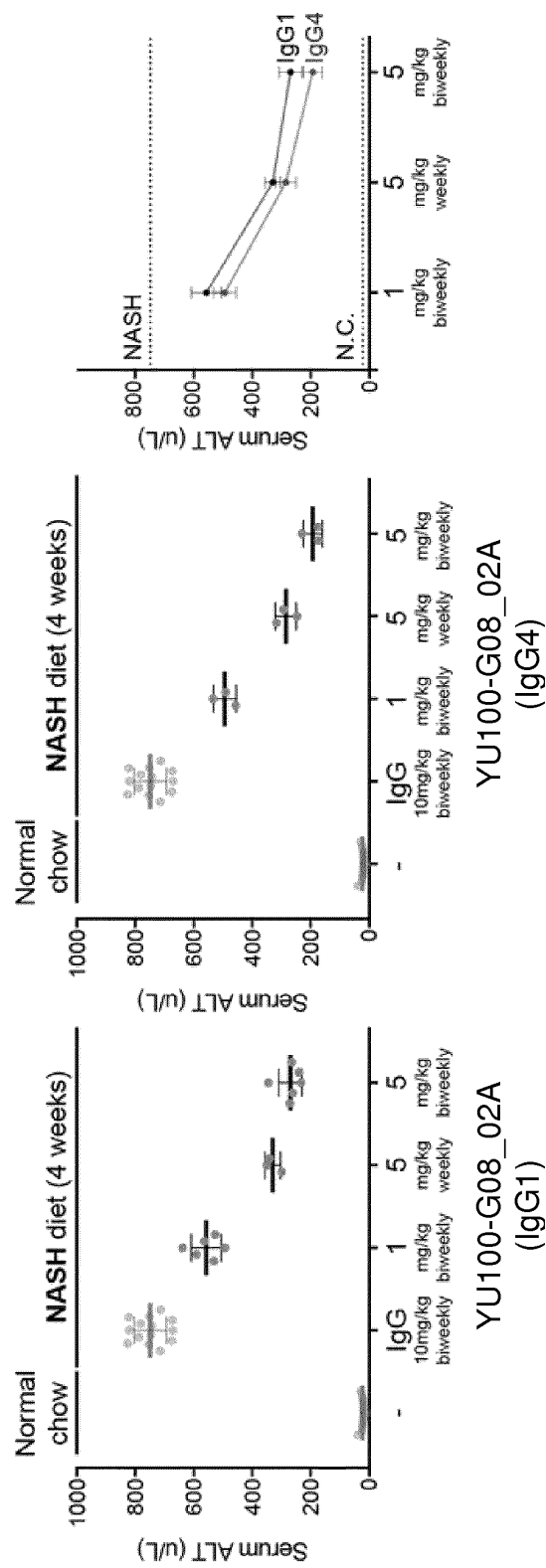


Figure 56A

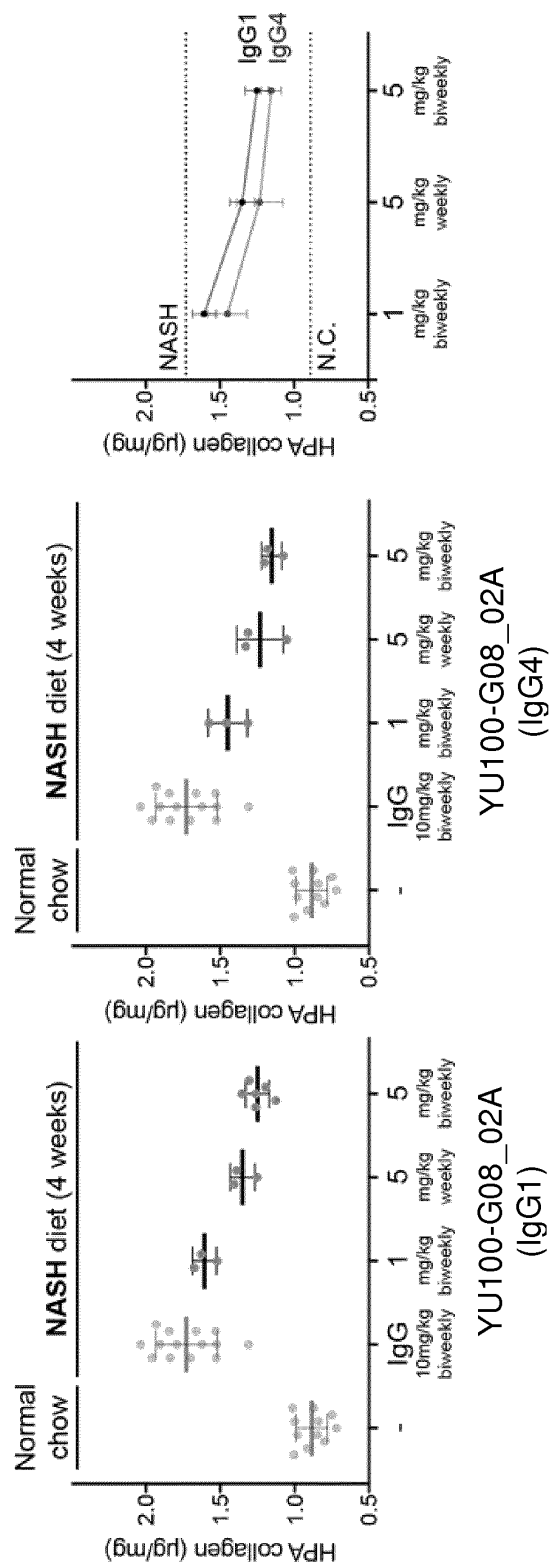


Figure 56B