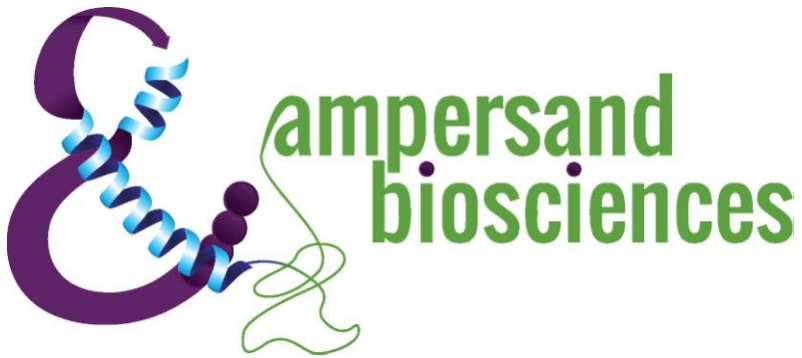


**RODENT MAP Mouse 5.0**

**VALIDATION REPORT**



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## Assay Description

Table 1. List of analytes

Panel	Abbr.	Name
Panel 1	IFN $\gamma$	Interferon gamma
	IL-1 $\alpha$	Interleukin 1 alpha
	IL-1 $\beta$	Interleukin 1 beta
	IL-2	Interleukin 2
	IL-4	Interleukin 4
	IL-5	Interleukin 5
	IL-6	Interleukin 6
	IL-10	Interleukin 10
	IL-12p40	Interleukin 12 p40
	IL-12p70	Interleukin 12 p70
	IL-13	Interleukin 13
	KC/GRO	Growth-Regulated Protein alpha
	TNF $\alpha$	Tumor Necrosis Factor alpha
Panel 2	CCL1	Chemokine (C-C motif) ligand 1; I-309
	CCL6	Chemokine (C-C motif) ligand 6
	Eotaxin	Eotaxin-1 (CCL-11)
	GCP-2	Granulocyte Chemotactic Protein 2 (CXCL6)
	IP-10	Interferon Gamma Inducible Protein (CXCL10)
	ITAC	Interferon-inducible T-cell alpha chemoattractant (CXCL11)
	MCP-1	Monocyte Chemotactic Protein 1 (CCL2)
	M-CSF	Macrophage Colony-Stimulating Factor
	MDC	Macrophage Derived Chemokine (CCL22)
	MIP-1 $\alpha$	Macrophage Inflammatory Protein 1 alpha (CCL3)
MIP-1 $\beta$	Macrophage Inflammatory Protein 1 beta (CCL4)	
Panel 3	GM-CSF	Granulocyte-Macrophage Colony-Stimulating Factor
	IFN $\beta$	Interferon beta
	IL-9	Interleukin 9
	IL-17A	Interleukin 17A
	IL-18	Interleukin 18
	IL-23	Interleukin 23
	IL-23	Interleukin 23
	IL-27	Interleukin 27
	IL-28	Interleukin 28
	MIP-2	Macrophage Inflammatory Protein 2 (CXCL2)
	TSLP	Thymic stromal lymphopietin
VEGF-A	Vascular Endothelial Growth Factor	
Panel 4	MIP-1 $\gamma$	Macrophage Inflammatory Protein 1 gamma
	MMP-9	Matrix metalloproteinase 9
	PAI-1	Plasminogen activator inhibitor-1
	VCAM-1	Vascular cell adhesion protein 1
	CRP	C-Reactive Protein
	NGAL	Neutrophil gelatinase-associated lipocalin

## Validation Description and Results

Parameter	Description	Acceptance
Dynamic Range	The dynamic range is the range of standard used to produce the dose response curve multiplied by the dilution factor (will vary with each kit lot). Curves were calculated using the best fit function in Plate Viewer Software. The S1 is the lowest level standard and the S8 is the highest.	≤ 3x of lot 1 values
LDD	The least detectable dose (LDD) was determined by adding three standard deviations to the average of the signal for 10 replicate determinations of the standard curve blank over 3 assays. Each value was converted to concentration as interpolated from the standard curve and multiplied by the dilution factor used for testing samples (will vary with each kit lot). The average of the 3 values is the final LDD.	≤ 3x of lot 1 value
LLOQ	The lower limit of quantification (LLOQ) was defined as the point at which the Coefficient of Variation (CV) for samples was 30%. It was determined by 2 fold dilutions of a mouse serum sample run in triplicate over 3 days, until 30% sample concentration CV was attained or the concentration was no longer linear. Analytes that were low in the samples were spiked (will vary with each kit lot).	≤ 3x of lot 1 value
Cross-Reactivity	Cross-reactivity was determined by testing high concentrations of each single standard and single detection in the assay.	<10%
Precision	Precision (Intra- and Inter-Run) was determined by measuring levels of control samples in duplicate of 5 runs over a minimum of 3 days.	C1 ≤ 20% C2 ≤ 20%
Linearity	Linearity was determined using the 2 serum and 2 plasma samples described, which were diluted 2-fold down from the recommended dilution for 4 dilutions. Results are calculated as observed over expected X 100. (*) indicates that the sample was spiked with recombinant protein.	70-130%
Freeze-thaw Stability	The two serum and plasma samples described were frozen and -80°C and thawed for 3 cycles. % Recovery is calculated by comparing the value of the treated sample to the freshly thawed control sample X 100. .	70-130%.
Bench Top Stability	The two serum and plasma samples described were left at room temperature and 4°C for 4 and 24 hrs. % Recovery was calculated by comparing the value of the treated sample to the freshly thawed control sample X 100.	70-130% for 4hr time point The 24 hr time point is for information only

The Rodent MAP 5.0 Mouse consists of the 4 multiplexes listed in Table 1. Each assay consists of antigen-specific antibodies coupled to magnetic Luminex® microspheres and other optimized reagents in a capture-sandwich format. All incubations take place at room temperature. 10 µL of a diluted mixture of capture-antibody microspheres are mixed with 10 µL blocker and 30 µL standard, pre-diluted sample, or control in a microtiter plate. The plate is incubated for 1 hour at room temperature on a plate shaker. The microspheres are then washed 3 times and 40µL biotinylated detection antibody is added to each well and incubated for 1 hour on a plate shaker. 20 µL diluted Streptavidin-phycoerythrin is added to each well and incubated for 30 minutes on a plate shaker. The microspheres are washed and resuspended in 100 µL wash buffer for subsequent analysis on the Luminex® 200 Analyzer.

## **Panel 1**

### a) Control and Sample Description:

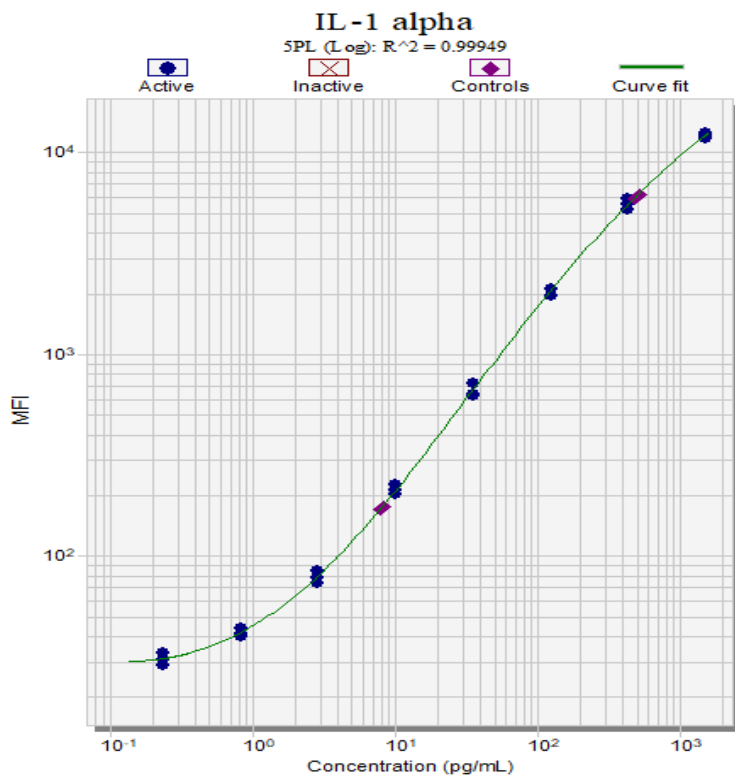
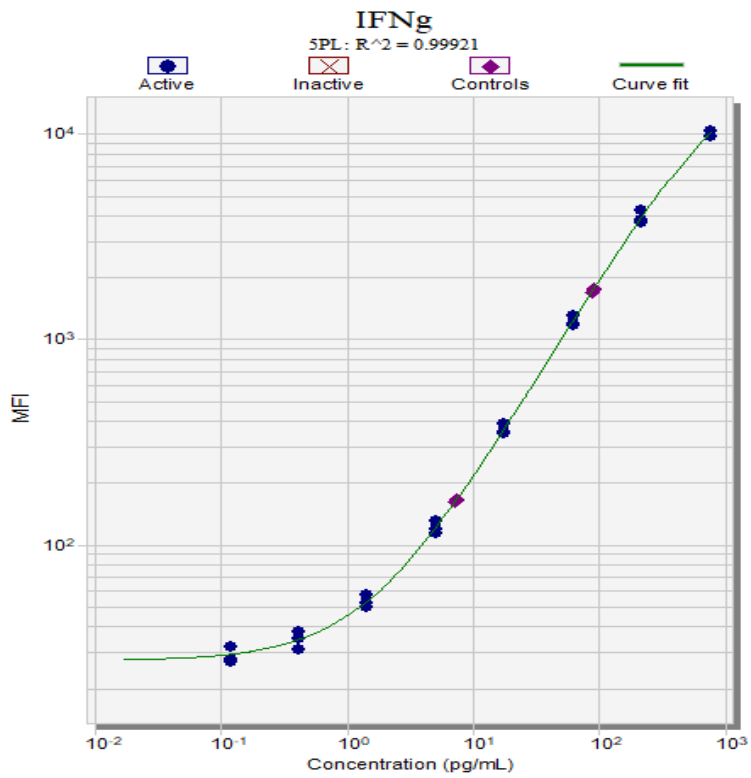
<b>Control</b>	<b>Description</b>
Control 1	Normal Mouse Serum (33%) spiked with Recombinant IL-1α, IL-1β, IL-10, IL-12p70, IL-13, IL-2, IL-4, IL-5, and IL-6.
Control 2	Normal Mouse Serum (8.3%) spiked with Recombinant IFNγ, IL-1α, IL-1β, IL-10, IL-12p40, IL-12p70, IL-13, IL-2, IL-4, IL-5, IL-6, KC/GRO, and TNFα.

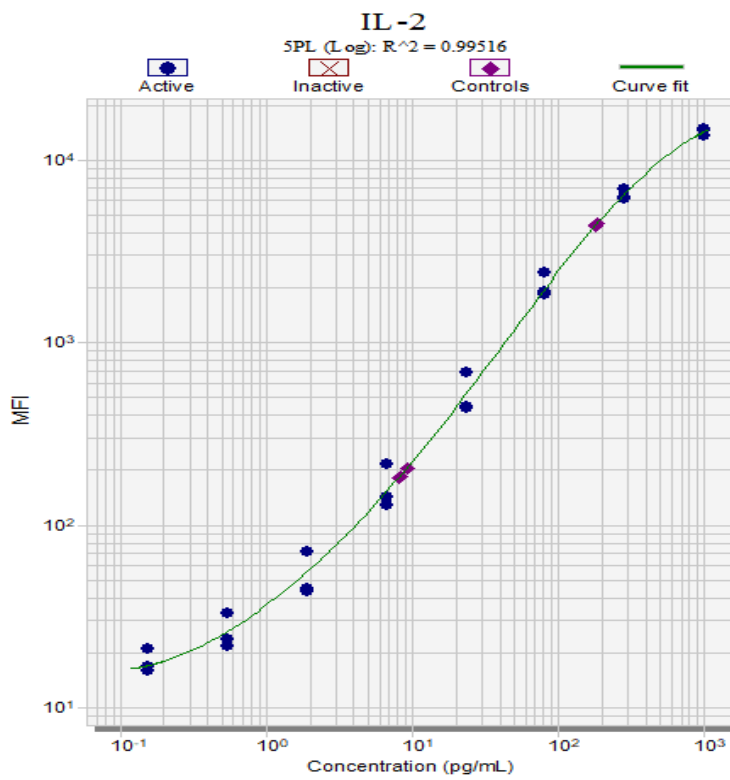
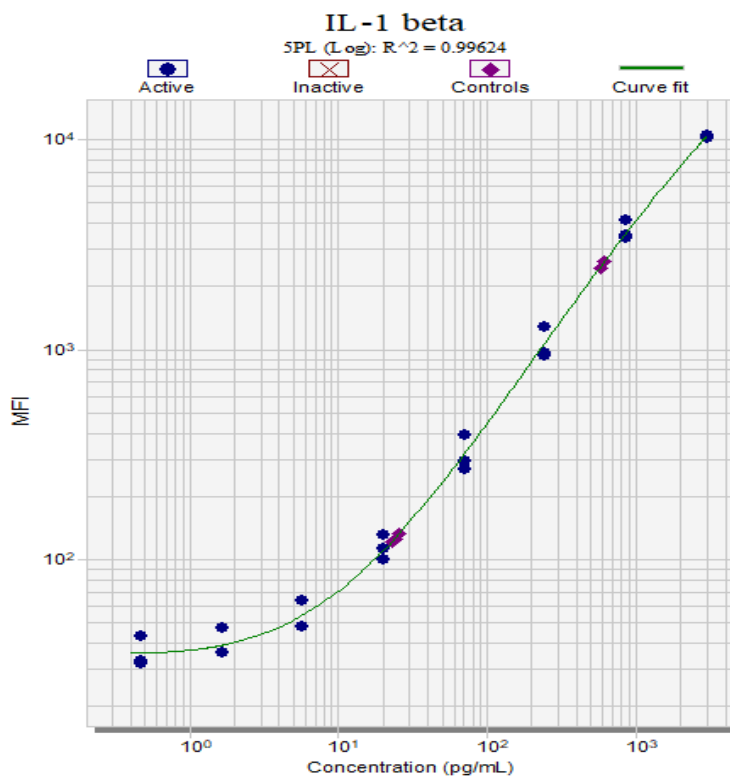
<b>Sample</b>	<b>Description</b>
Serum 1	Normal Mouse Serum spiked with Recombinant IFNγ, IL-1α, IL-1β, IL-10, IL-12p40, IL-12p70, IL-13, IL-2, IL-4, IL-5, IL-6, KC/GRO, and TNFα.
Serum 2	Normal Mouse Serum spiked with Recombinant IL-1α, IL-1β, IL-12p70, IL-13, and IL-5.
Plasma 1	Normal Mouse Plasma spiked with Recombinant IL-1β, IL-12p70, and IL-5.
Plasma 2	Normal Mouse Plasma spiked with Recombinant IL-1β, IL-12p70, IL-13, IL-2, IL-4, and IL-5.

b) Representative LLOQ, LDD and Curves:

		<b>S1</b>	<b>S8</b>	<b>LDD</b>	<b>LLOQ</b>
<b>IFN<math>\gamma</math></b>	<b>pg/mL</b>	0.12	750	0.46	0.46
<b>IL-1<math>\alpha</math></b>	<b>pg/mL</b>	0.23	1500	0.65	1.2
<b>IL-1<math>\beta</math></b>	<b>pg/mL</b>	0.47	3000	1.5	1.5
<b>IL-10</b>	<b>pg/mL</b>	0.19	1250	0.30	0.30
<b>IL-12p40</b>	<b>pg/mL</b>	0.78	5000	8.0	8.0
<b>IL-12p70</b>	<b>pg/mL</b>	2.33	15000	8.2	8.2
<b>IL-13</b>	<b>pg/mL</b>	0.16	1000	0.38	1.2
<b>IL-2</b>	<b>pg/mL</b>	0.16	1000	0.58	0.90
<b>IL-4</b>	<b>pg/mL</b>	0.051	330	0.10	0.10
<b>IL-5</b>	<b>pg/mL</b>	0.19	1250	0.20	0.20
<b>IL-6</b>	<b>pg/mL</b>	0.23	1500	0.20	0.20
<b>KC/GRO</b>	<b>pg/mL</b>	0.23	1500	1.2	1.2
<b>TNF<math>\alpha</math></b>	<b>pg/mL</b>	0.078	500	0.10	0.10

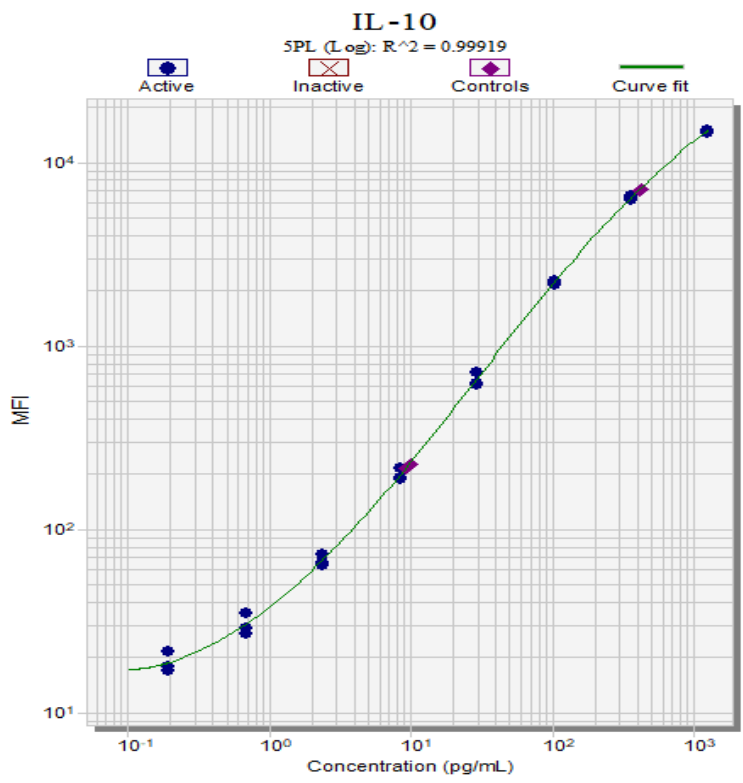
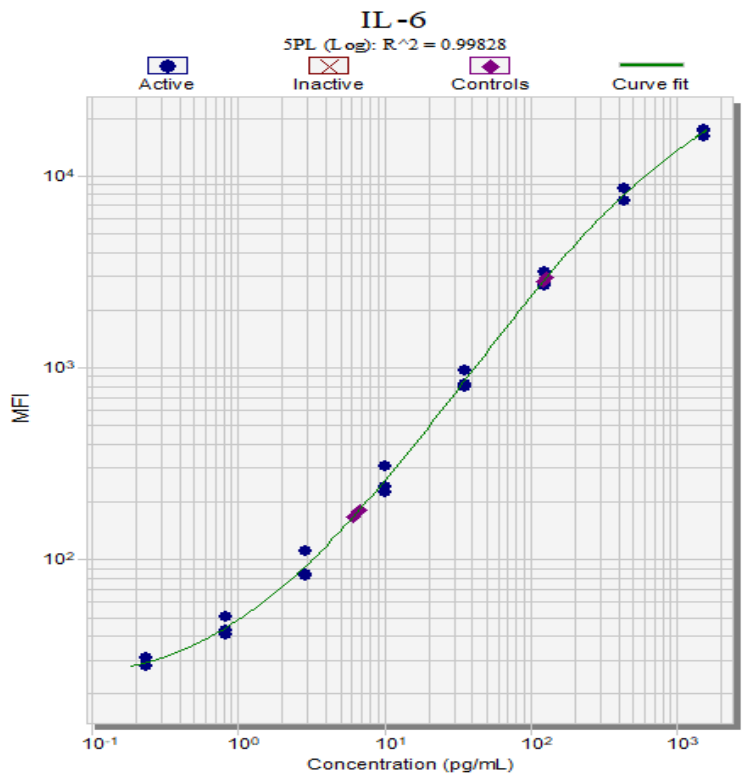
<b>X Dilution Factor</b>		<b>S1</b>	<b>S8</b>	<b>LDD</b>	<b>LLOQ</b>
<b>IFN<math>\gamma</math></b>	<b>pg/mL</b>	0.59	3750	2.3	2.3
<b>IL-1<math>\alpha</math></b>	<b>pg/mL</b>	1.2	7500	3.3	6.0
<b>IL-1<math>\beta</math></b>	<b>pg/mL</b>	2.3	15000	7.5	7.5
<b>IL-10</b>	<b>pg/mL</b>	0.97	6250	1.5	1.5
<b>IL-12p40</b>	<b>pg/mL</b>	3.9	25000	40	40
<b>IL-12p70</b>	<b>pg/mL</b>	12	75000	41	41
<b>IL-13</b>	<b>pg/mL</b>	0.78	5000	1.9	6.0
<b>IL-2</b>	<b>pg/mL</b>	0.78	5000	2.9	4.5
<b>IL-4</b>	<b>pg/mL</b>	0.26	1650	0.50	0.50
<b>IL-5</b>	<b>pg/mL</b>	0.97	6250	1.0	1.0
<b>IL-6</b>	<b>pg/mL</b>	1.2	7500	1.0	1.0
<b>KC/GRO</b>	<b>pg/mL</b>	1.2	7500	6.0	6.0
<b>TNF<math>\alpha</math></b>	<b>pg/mL</b>	0.39	2500	0.50	0.50

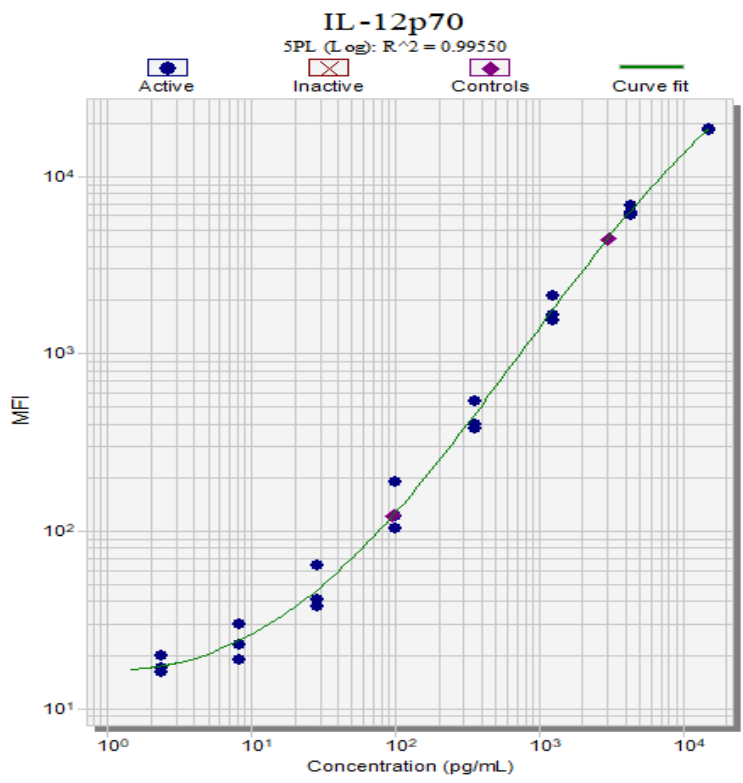
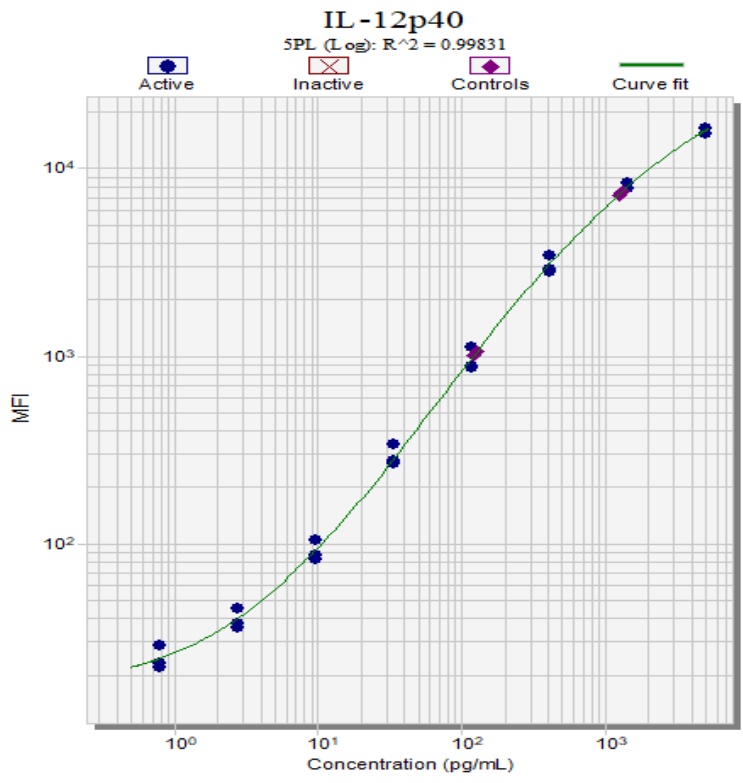


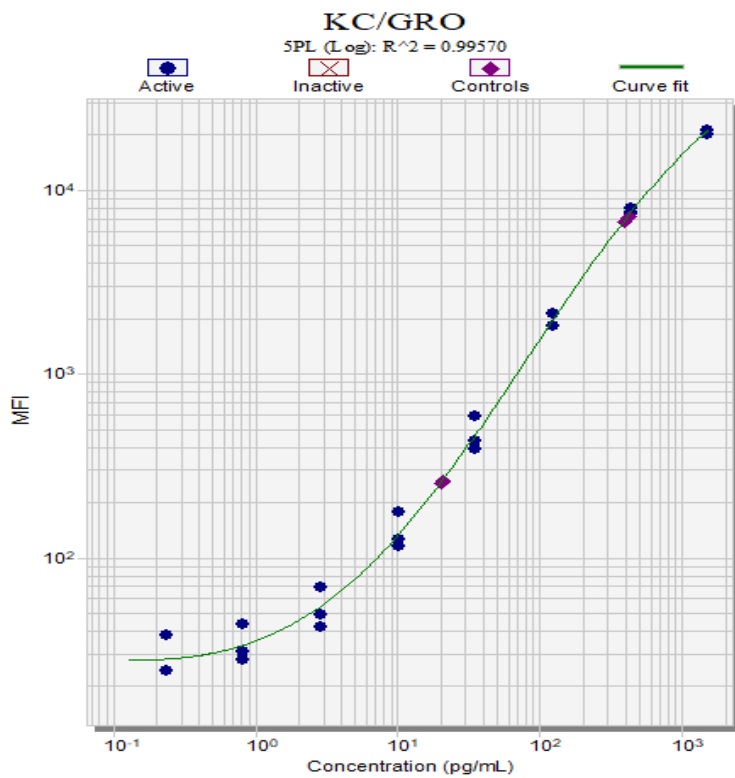
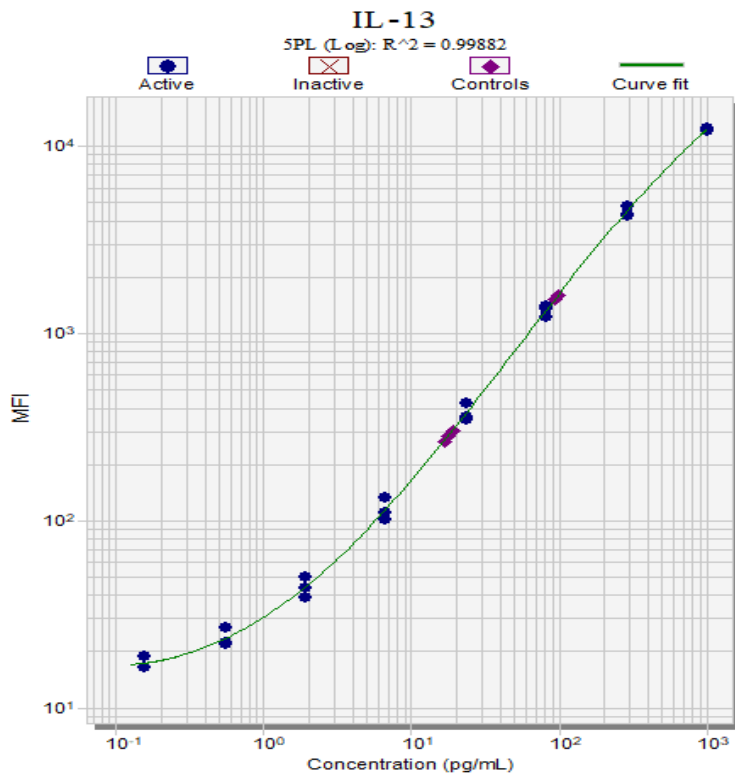


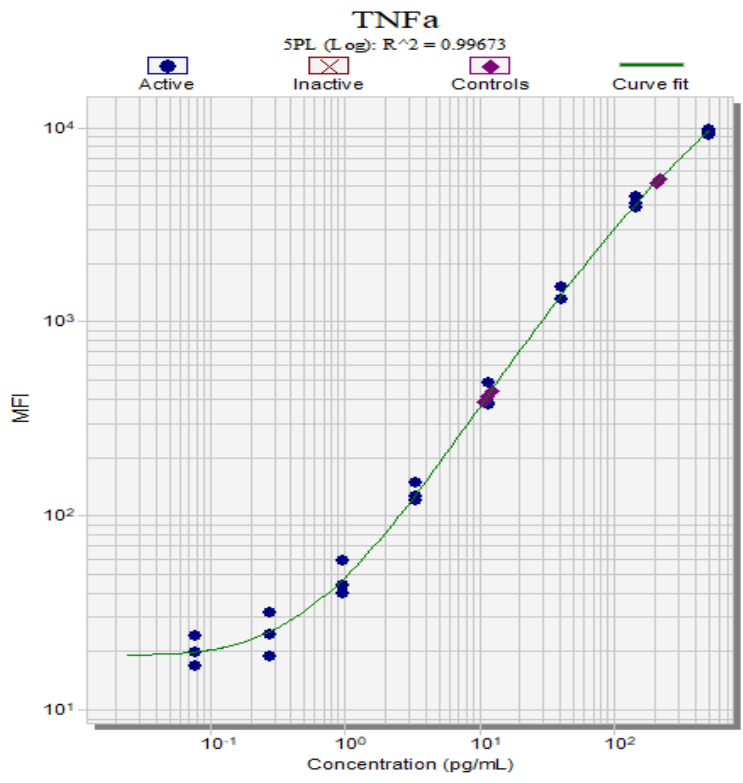












c) Precision:

IFN $\gamma$		1	2	3	Inter
Control 1	Mean	6.8	7.1	7.2	7.0
	% CV	4%	3%	3%	4%
Control 2	Mean	84	87	82	84
	% CV	3%	3%	4%	3%

IL-1 $\alpha$		1	2	3	Inter
Control 1	Mean	7.7	7.7	8.7	8.0
	% CV	2%	6%	4%	7%
Control 2	Mean	494	484	457	478
	% CV	4%	3%	2%	4%

IL-1 $\beta$		1	2	3	Inter
Control 1	Mean	21	26	24	24
	% CV	3%	3%	1%	8%
Control 2	Mean	556	609	497	554
	% CV	4%	5%	2%	9%

IL-10		1	2	3	Inter
Control 1	Mean	10	9.4	10	10
	% CV	3%	5%	2%	5%
Control 2	Mean	391	426	343	387
	% CV	4%	2%	1%	10%

IL-12p40		1	2	3	Inter
Control 1	Mean	122	133	126	127
	% CV	6%	5%	3%	6%
Control 2	Mean	1117	1143	1187	1149
	% CV	1%	4%	3%	4%

IL-12p70		1	2	3	Inter
Control 1	Mean	85	92	94	90
	% CV	3%	3%	3%	5%
Control 2	Mean	2773	2973	2647	2798
	% CV	1%	3%	2%	5%

IL-13		1	2	3	Inter
Control 1	Mean	17	14	20	17
	% CV	3%	1%	3%	14%
Control 2	Mean	87	91	90	89
	% CV	2%	2%	2%	3%

IL-2		1	2	3	Inter
Control 1	Mean	7.0	7.1	7.6	7.2
	% CV	3%	4%	1%	4%
Control 2	Mean	168	170	175	171
	% CV	3%	3%	4%	4%

IL-4		1	2	3	Inter
Control 1	Mean	2.1	2.2	2.3	2.2
	% CV	5%	3%	6%	5%
Control 2	Mean	103	109	98	103
	% CV	1%	2%	0%	5%

IL-5		1	2	3	Inter
Control 1	Mean	12	13	13	13
	% CV	5%	2%	9%	7%
Control 2	Mean	408	458	341	402
	% CV	1%	4%	2%	13%

IL-6		1	2	3	Inter
Control 1	Mean	5.3	5.8	6.2	5.8
	% CV	3%	1%	3%	7%
Control 2	Mean	114	132	119	122
	% CV	2%	2%	6%	7%

KC/GRO		1	2	3	Inter
Control 1	Mean	19	21	21	20
	% CV	1%	1%	2%	6%
Control 2	Mean	344	396	363	368
	% CV	2%	1%	2%	6%

TNF $\alpha$		1	2	3	Inter
Control 1	Mean	10	11	11	11
	% CV	2%	3%	4%	6%
Control 2	Mean	195	197	175	189
	% CV	3%	1%	1%	6%

d) Linearity:

IFN $\gamma$				
pg/ml	Serum 1	Serum 2	Plasma 1	Plasma 2
1:5	2375	2600	3330	2315
1:10	1130	1270	1270	1315
1:20	557	705	607	849
1:40	270	346	272	329
2	95%	98%	76%	114%
4	99%	111%	96%	129%
8	97%	98%	90%	78%

IL-1 $\alpha$				
pg/ml	Serum 1	Serum 2	Plasma 1	Plasma 2
1:5	511	458	545	538
1:10	258	257	271	305
1:20	131	140	138	171
1:40	67	77	70	75
2	101%	112%	99%	113%
4	102%	109%	102%	112%
8	103%	110%	101%	88%

IL-1 $\beta$				
pg/ml	Serum 1	Serum 2	Plasma 1	Plasma 2
1:5	4520	4115	3835	4000
1:10	2075	1940	1725	2170
1:20	965	1088	847	1325
1:40	425	501	393	494
2	92%	94%	90%	109%
4	93%	112%	98%	122%
8	88%	92%	93%	75%

IL-10				
pg/ml	Serum 1	Serum 2	Plasma 1	Plasma 2
1:5	37	35	41	34
1:10	20	17	18	20
1:20	10	10	10	12
1:40	5.5	5.3	5.0	5.4
2	106%	100%	89%	116%
4	104%	120%	106%	118%
8	108%	102%	104%	94%



<b>IL-12p40</b>				
<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:5</b>	332	272	443	322
<b>1:10</b>	188	149	204	179
<b>1:20</b>	106	87	105	98
<b>1:40</b>	54	45	53	42
<b>2</b>	113%	109%	92%	111%
<b>4</b>	112%	117%	103%	110%
<b>8</b>	103%	102%	101%	86%

<b>IL-12p70</b>				
<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:5</b>	2780	2340	2495	2365
<b>1:10</b>	1105	991	923	1029
<b>1:20</b>	487	479	380	520
<b>1:40</b>	202	224	172	210
<b>2</b>	79%	85%	74%	87%
<b>4</b>	88%	97%	82%	101%
<b>8</b>	83%	93%	91%	81%

<b>IL-13</b>				
<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:5</b>	147	154	261	197
<b>1:10</b>	87	98	130	114
<b>1:20</b>	54	58	69	74
<b>1:40</b>	31	35	37	37
<b>2</b>	119%	128%	100%	116%
<b>4</b>	124%	119%	106%	130%
<b>8</b>	115%	118%	108%	101%

<b>IL-2</b>				
<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:5</b>	65	57	55	49
<b>1:10</b>	24	23	22	22
<b>1:20</b>	11	11	9.2	12
<b>1:40</b>	5.0	5.5	4.1	4.9
<b>2</b>	76%	80%	81%	88%
<b>4</b>	88%	96%	83%	108%
<b>8</b>	93%	102%	90%	84%

IL-4				
pg/ml	Serum 1	Serum 2	Plasma 1	Plasma 2
1:5	32	29	32	32
1:10	16	15	16	17
1:20	8.8	8.4	7.8	10
1:40	4.0	4.3	3.9	4.1
2	99%	102%	100%	110%
4	112%	114%	97%	114%
8	91%	104%	101%	84%

IL-5				
pg/ml	Serum 1	Serum 2	Plasma 1	Plasma 2
1:5	617	511	547	340
1:10	245	201	198	219
1:20	91	81	73	127
1:40	38	33	30	65
2	79%	79%	72%	129%
4	74%	81%	74%	116%
8	84%	82%	82%	102%

IL-6				
pg/ml	Serum 1	Serum 2	Plasma 1	Plasma 2
1:5	41	30	36	30
1:10	17	13	13	13
1:20	7.4	6.0	6.1	7.6
1:40	3.1	2.9	2.6	2.8
2	81%	85%	73%	89%
4	88%	94%	92%	115%
8	85%	98%	84%	73%

KC/GRO				
pg/ml	Serum 1	Serum 2	Plasma 1	Plasma 2
1:5	38	1075	238	741
1:10	18	688	154	473
1:20	8.0	430	90	256
1:40	4.6	250	46	140
2	92%	128%	130%	128%
4	91%	125%	116%	108%
8	114%	116%	103%	109%

TNF $\alpha$					
pg/ml		Serum 1	Serum 2	Plasma 1	Plasma 2
1:5		76	50	58	48
1:10		36	23	27	27
1:20		18	14	14	16
1:40		8.9	7.3	6.9	8.1
2		95%	94%	93%	112%
4		97%	117%	104%	120%
8		101%	107%	100%	101%

e) Freeze/thaw stability:

IFN $\gamma$					
pg/ml		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	852	776	880	674
	FT-1X	908	750	891	704
	FT-2X	953	819	897	746
	FT-3X	731	712	824	672
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	107%	97%	101%	105%
	FT-2X	112%	106%	102%	111%
	FT-3X	86%	92%	94%	100%

IL-1 $\alpha$					
pg/ml		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	966	755	906	887
	FT-1X	945	710	890	888
	FT-2X	989	727	904	945
	FT-3X	808	635	794	813
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	98%	94%	98%	100%
	FT-2X	102%	96%	100%	107%
	FT-3X	84%	84%	88%	92%

		<b>IL-1<math>\beta</math></b>			
		<b>pg/ml</b>			
		<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	FT-0X	8725	7340	6965	7390
	FT-1X	9900	7125	7090	7695
	FT-2X	9985	7490	7185	7810
	FT-3X	7740	6810	6670	7200
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	113%	97%	102%	104%
	FT-2X	114%	102%	103%	106%
	FT-3X	89%	93%	96%	97%

		<b>IL-10</b>			
		<b>pg/ml</b>			
		<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	FT-0X	1685	1445	2080	1435
	FT-1X	1760	1425	2050	1440
	FT-2X	1780	1460	2120	1495
	FT-3X	1515	1285	1970	1400
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	104%	99%	99%	100%
	FT-2X	106%	101%	102%	104%
	FT-3X	90%	89%	95%	98%

		<b>IL-12p40</b>			
		<b>pg/ml</b>			
		<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	FT-0X	1430	1210	2095	1625
	FT-1X	1445	1175	2120	1760
	FT-2X	1440	1180	2260	1745
	FT-3X	1360	1085	2120	1640
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	101%	97%	101%	108%
	FT-2X	101%	98%	108%	107%
	FT-3X	95%	90%	101%	101%

		<b>IL-12p70</b>				
		<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	FT-0X		9665	8300	9440	8195
	FT-1X		10300	8165	9330	8490
	FT-2X		10885	8730	9330	8920
	FT-3X		8925	7960	9200	8180
% Control	FT-0X		100%	100%	100%	100%
	FT-1X		107%	98%	99%	104%
	FT-2X		113%	105%	99%	109%
	FT-3X		92%	96%	97%	100%

		<b>IL-13</b>				
		<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	FT-0X		121	34	181	26
	FT-1X		118	34	191	25
	FT-2X		121	43	192	27
	FT-3X		123	35	188	29
% Control	FT-0X		100%	100%	100%	100%
	FT-1X		98%	100%	105%	98%
	FT-2X		100%	127%	106%	105%
	FT-3X		101%	103%	104%	111%

		<b>IL-2</b>				
		<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	FT-0X		965	768	938	768
	FT-1X		1028	758	940	747
	FT-2X		1067	796	958	791
	FT-3X		825	711	915	703
% Control	FT-0X		100%	100%	100%	100%
	FT-1X		106%	99%	100%	97%
	FT-2X		111%	104%	102%	103%
	FT-3X		85%	93%	98%	92%

		<b>IL-4</b>				
		<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	FT-0X		665	550	679	655
	FT-1X		679	524	710	669
	FT-2X		709	554	706	690
	FT-3X		576	504	677	634
% Control	FT-0X		100%	100%	100%	100%
	FT-1X		102%	95%	105%	102%
	FT-2X		107%	101%	104%	105%
	FT-3X		87%	92%	100%	97%

		<b>IL-5</b>				
		<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	FT-0X		1380	1035	1230	1190
	FT-1X		1465	1070	1240	1195
	FT-2X		1435	1120	1315	1260
	FT-3X		1265	970	1220	1125
% Control	FT-0X		100%	100%	100%	100%
	FT-1X		106%	103%	101%	100%
	FT-2X		104%	108%	107%	106%
	FT-3X		92%	94%	99%	95%

		<b>IL-6</b>				
		<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	FT-0X		2130	1610	2280	1940
	FT-1X		2255	1570	2360	1900
	FT-2X		2280	1695	2425	2020
	FT-3X		1725	1395	2275	1805
% Control	FT-0X		100%	100%	100%	100%
	FT-1X		106%	98%	104%	98%
	FT-2X		107%	105%	106%	104%
	FT-3X		81%	87%	100%	93%

		KC/GRO				
		pg/ml	Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X		1390	1415	2030	1710
	FT-1X		1455	1385	2020	1650
	FT-2X		1585	1520	2105	1715
	FT-3X		1195	1300	1950	1575
% Control	FT-0X		100%	100%	100%	100%
	FT-1X		105%	98%	100%	96%
	FT-2X		114%	107%	104%	100%
	FT-3X		86%	92%	96%	92%

		TNF $\alpha$				
		pg/ml	Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X		1115	836	929	748
	FT-1X		1099	813	979	763
	FT-2X		1129	816	974	755
	FT-3X		965	756	951	715
% Control	FT-0X		100%	100%	100%	100%
	FT-1X		99%	97%	105%	102%
	FT-2X		101%	98%	105%	101%
	FT-3X		87%	90%	102%	96%

f) Bench Top Stability:

		IFN $\gamma$				
		pg/ml	Serum 1	Serum 2	Plasma 1	Plasma 2
Value	0 HR		5068	4373	4920	747
	2hr RT		5280	4561	5205	701
	2hr 4C		5439	4677	5169	880
	4hr 4C		4764	4682	4951	735
% Control	0 HR		100%	100%	100%	100%
	2hr RT		104%	104%	106%	94%
	2hr 4C		107%	107%	105%	118%
	4hr 4C		94%	107%	101%	98%

		<b>IL-1<math>\alpha</math></b>				
		<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	0 HR		883	733	932	1019
	2hr RT		775	561	664	756
	2hr 4C		881	741	871	1007
	4hr 4C		769	670	741	953
% Control	0 HR		100%	100%	100%	100%
	2hr RT		88%	76%	71%	74%
	2hr 4C		100%	101%	93%	99%
	4hr 4C		87%	91%	79%	94%

		<b>IL-1<math>\beta</math></b>				
		<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	0 HR		8165	7510	7360	8230
	2hr RT		7970	7225	7720	7520
	2hr 4C		8530	8620	7455	9095
	4hr 4C		7880	8640	7090	7545
% Control	0 HR		100%	100%	100%	100%
	2hr RT		98%	96%	105%	91%
	2hr 4C		104%	115%	101%	111%
	4hr 4C		97%	115%	96%	92%

		<b>IL-10</b>				
		<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	0 HR		1535	1430	2115	1505
	2hr RT		1450	1345	1920	1380
	2hr 4C		1580	1550	2050	1565
	4hr 4C		1475	1450	1965	1425
% Control	0 HR		100%	100%	100%	100%
	2hr RT		94%	94%	91%	92%
	2hr 4C		103%	108%	97%	104%
	4hr 4C		96%	101%	93%	95%



		<b>IL-12p40</b>				
		<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	0 HR		1350	1265	2335	1820
	2hr RT		1340	1190	2275	1730
	2hr 4C		1425	1165	2210	1800
	4hr 4C		1310	1155	2250	1730
% Control	0 HR		100%	100%	100%	100%
	2hr RT		99%	94%	97%	95%
	2hr 4C		106%	92%	95%	99%
	4hr 4C		97%	91%	96%	95%
		<b>IL-12p70</b>				
		<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	0 HR		9380	8865	10050	9055
	2hr RT		9470	8445	10025	8705
	2hr 4C		10550	9920	9530	10165
	4hr 4C		8455	9805	9045	8760
% Control	0 HR		100%	100%	100%	100%
	2hr RT		101%	95%	100%	96%
	2hr 4C		112%	112%	95%	112%
	4hr 4C		90%	111%	90%	97%

		<b>IL-13</b>				
		<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	0 HR		134	33	194	26
	2hr RT		94	32	121	26
	2hr 4C		102	31	141	28
	4hr 4C		105	32	146	28
% Control	0 HR		100%	100%	100%	100%
	2hr RT		70%	95%	63%	97%
	2hr 4C		76%	92%	73%	105%
	4hr 4C		78%	95%	75%	108%

		<b>IL-2</b>				
		<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	0 HR		877	811	959	822
	2hr RT		918	812	984	723
	2hr 4C		953	981	980	905
	4hr 4C		824	962	929	728
% Control	0 HR		100%	100%	100%	100%
	2hr RT		105%	100%	103%	88%
	2hr 4C		109%	121%	102%	110%
	4hr 4C		94%	119%	97%	89%

		<b>IL-4</b>				
		<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	0 HR		595	553	692	713
	2hr RT		613	561	699	665
	2hr 4C		637	627	716	777
	4hr 4C		585	594	668	689
% Control	0 HR		100%	100%	100%	100%
	2hr RT		103%	102%	101%	93%
	2hr 4C		107%	113%	103%	109%
	4hr 4C		98%	107%	97%	97%

		<b>IL-5</b>				
		<b>pg/ml</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
Value	0 HR		1320	1160	1325	1285
	2hr RT		1260	1095	1275	1210
	2hr 4C		1425	1225	1290	1380
	4hr 4C		1255	1190	1225	1200
% Control	0 HR		100%	100%	100%	100%
	2hr RT		95%	94%	96%	94%
	2hr 4C		108%	106%	97%	107%
	4hr 4C		95%	103%	92%	93%

IL-6					
pg/ml		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	0 HR	1820	1640	2320	2070
	2hr RT	1855	1695	2225	1920
	2hr 4C	1995	1860	2415	2390
	4hr 4C	1695	1895	2345	1895
% Control	0 HR	100%	100%	100%	100%
	2hr RT	102%	103%	96%	93%
	2hr 4C	110%	113%	104%	115%
	4hr 4C	93%	116%	101%	92%

KC/GRO					
pg/ml		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	0 HR	1290	1440	2050	1785
	2hr RT	1215	1355	1940	1650
	2hr 4C	1325	1730	2050	2005
	4hr 4C	1190	1750	1935	1625
% Control	0 HR	100%	100%	100%	100%
	2hr RT	94%	94%	95%	92%
	2hr 4C	103%	120%	100%	112%
	4hr 4C	92%	122%	94%	91%

TNF $\alpha$					
pg/ml		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	0 HR	984	807	944	815
	2hr RT	1035	854	1020	740
	2hr 4C	1085	883	1010	811
	4hr 4C	904	884	952	778
% Control	0 HR	100%	100%	100%	100%
	2hr RT	105%	106%	108%	91%
	2hr 4C	110%	109%	107%	100%
	4hr 4C	92%	109%	101%	95%

## **Panel 2**

### a) Control and Sample Description:

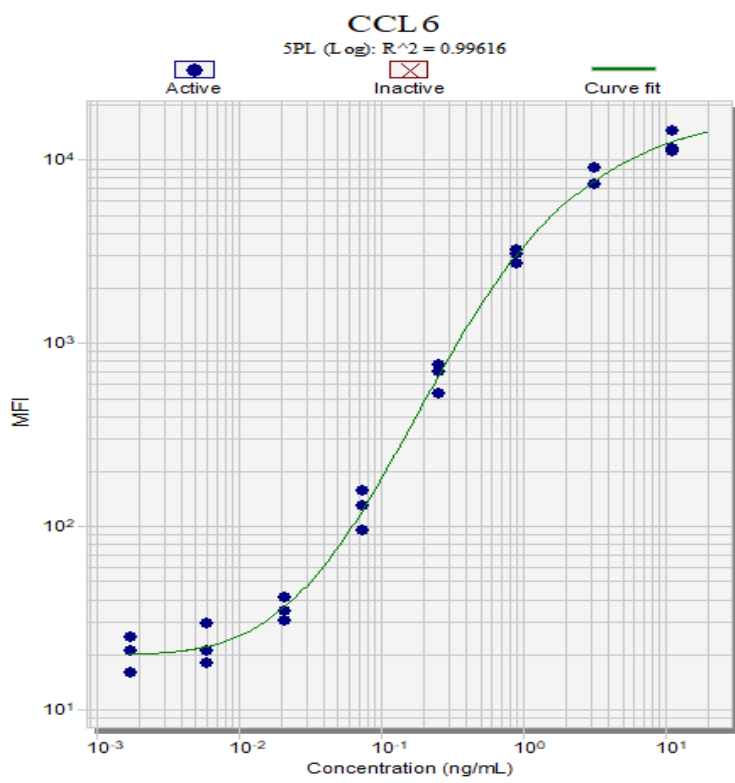
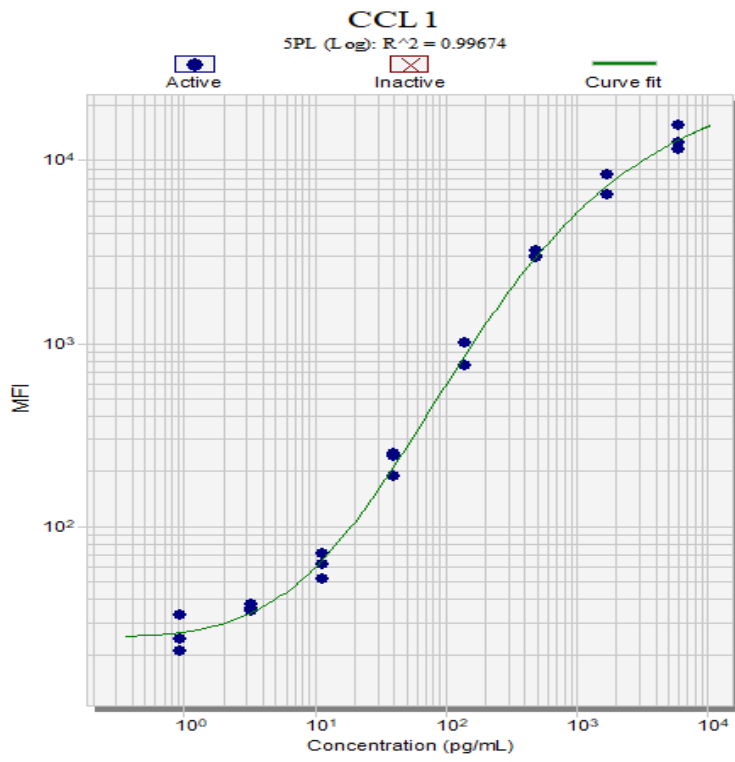
<b>Control</b>	<b>Description</b>
Control 1	Normal Mouse Serum (0.625%) spiked with Recombinant CCL1, CCL6, Eotaxin, GCP-2, IP-10, ITAC, MCP-1, MDC, MIP-1 $\alpha$ and MIP-1 $\beta$ .
Control 2	Normal Mouse Serum (20%) spiked with Recombinant CCL1, CCL6, Eotaxin, GCP-2, IP-10, ITAC, MCP-1, MDC, MIP-1 $\alpha$ and MIP-1 $\beta$ .

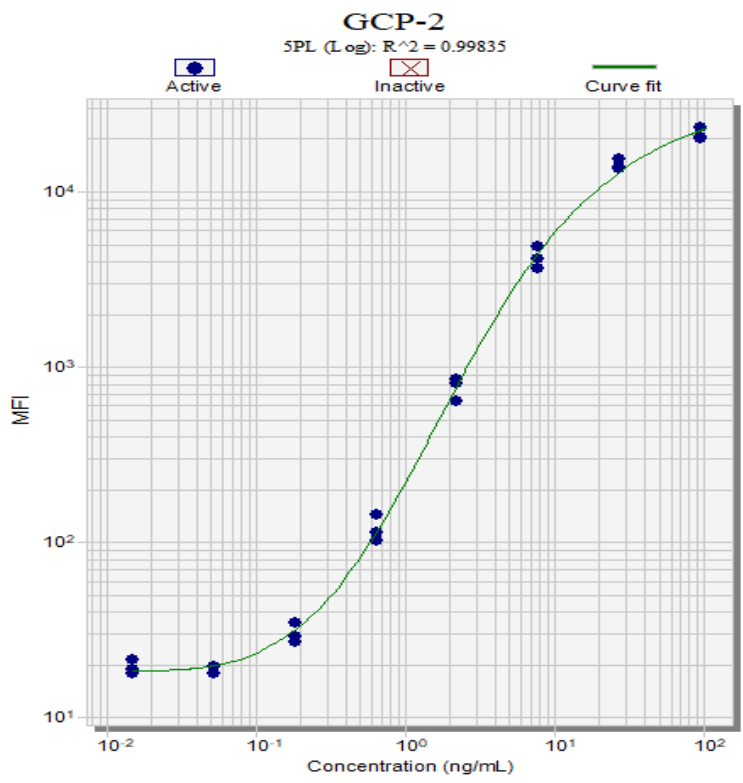
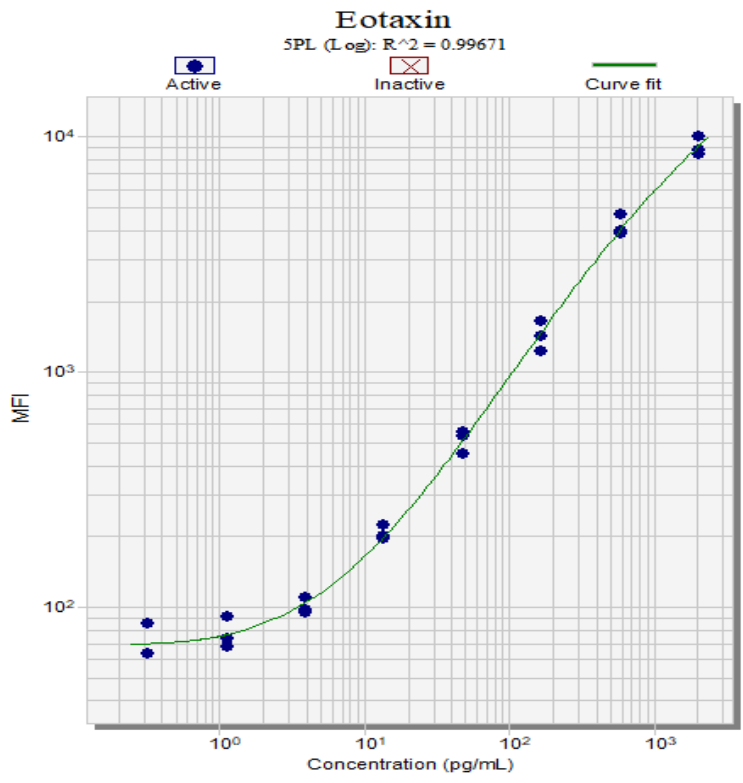
<b>Sample</b>	<b>Description</b>
Serum 1	Normal Mouse Serum (10%) spiked with Recombinant CCL1, CCL6, Eotaxin, GCP-2, IP-10, ITAC, MCP-1, MDC, MIP-1 $\alpha$ and MIP-1 $\beta$ .
Serum 2	Normal Mouse Serum (99%) spiked with Recombinant ITAC, MCP-1 and MIP-1 $\alpha$ .
Plasma 1	Normal Mouse Plasma (99%) spiked with Recombinant GCP-2, ITAC, MCP-1 and MIP-1 $\alpha$ .
Plasma 2	Normal Mouse Plasma (99%) spiked with Recombinant GCP-2, ITAC, MCP-1 and MIP-1 $\alpha$ .

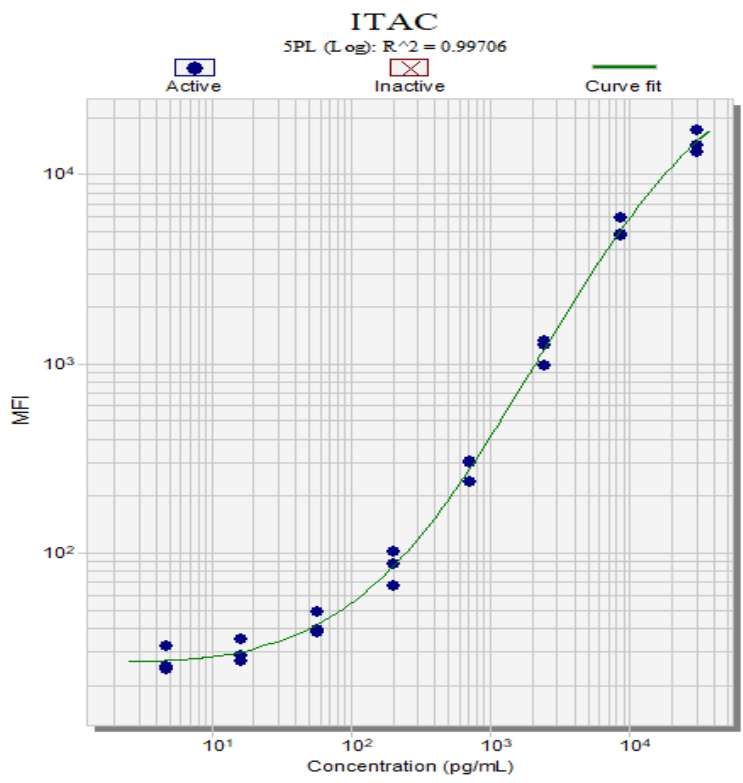
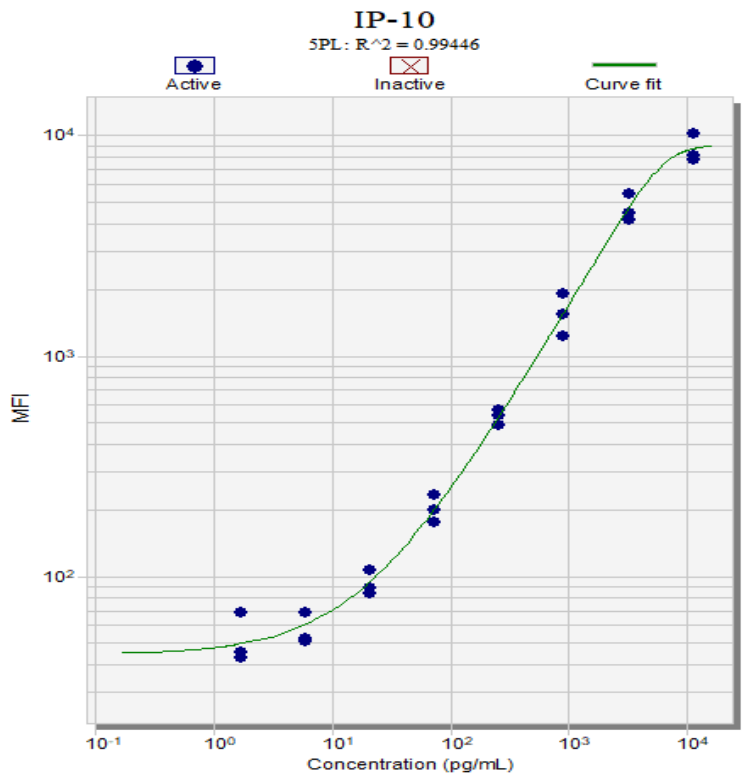
b) Representative LLOQ, LDD and Curves:

		<b>S1</b>	<b>S8</b>	<b>LDD</b>	<b>LLOQ</b>
<b>CCL1</b>	<b>pg/mL</b>	0.931	6000	1.2	4.1
<b>CCL6</b>	<b>ng/mL</b>	0.00171	11	0.0110	0.017
<b>Eotaxin</b>	<b>pg/mL</b>	0.317	2045	0.71	2.9
<b>GCP-2</b>	<b>ng/mL</b>	0.0147	95	0.058	0.090
<b>IP-10</b>	<b>pg/mL</b>	1.71	11000	3.3	11
<b>ITAC</b>	<b>pg/mL</b>	4.66	30000	15	28
<b>MCP-1</b>	<b>pg/mL</b>	0.571	3680	1.8	3.6
<b>M-CSF</b>	<b>ng/mL</b>	0.000931	6	0.0017	0.0093
<b>MDC</b>	<b>pg/mL</b>	0.207	1340	0.29	0.81
<b>MIP-1<math>\alpha</math></b>	<b>pg/mL</b>	47.4	304500	367	449
<b>MIP-1<math>\beta</math></b>	<b>pg/mL</b>	0.351	2250	0.40	1.5

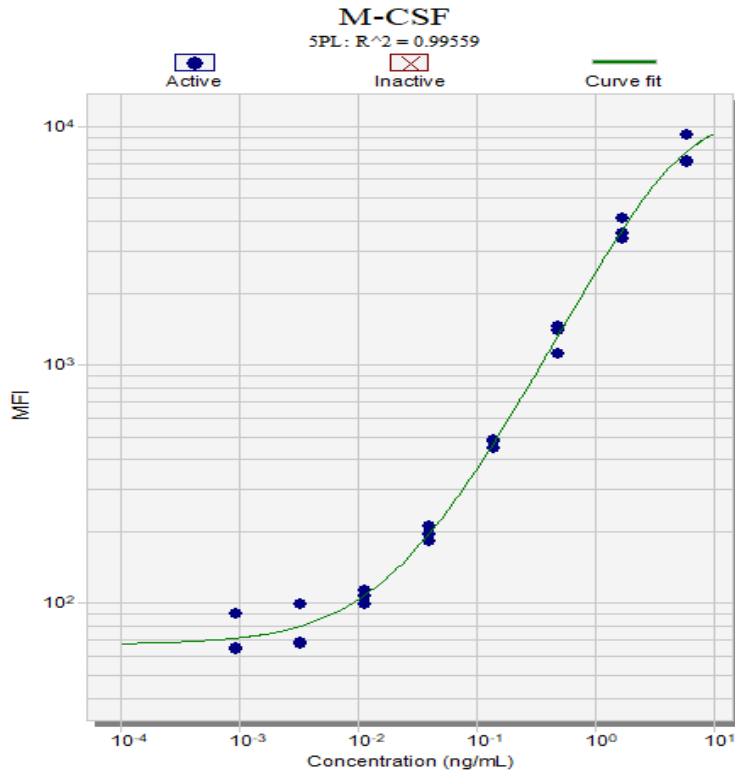
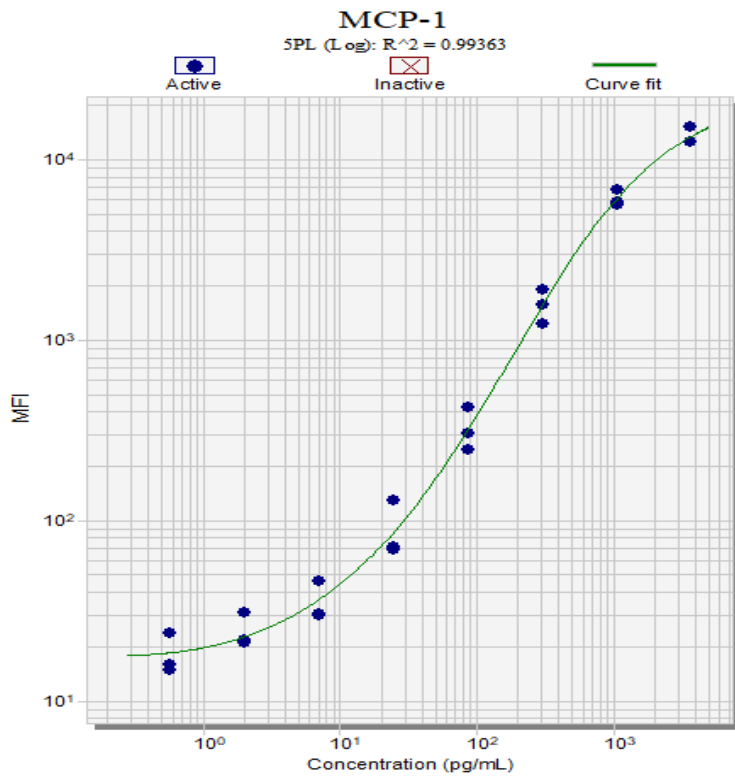
<b>X Dilution Factor</b>		<b>S1</b>	<b>S8</b>	<b>LDD</b>	<b>LLOQ</b>
<b>CCL1</b>	<b>pg/mL</b>	4.655	30000	6.0	21
<b>CCL6</b>	<b>ng/mL</b>	0.00855	55	0.055	0.087
<b>Eotaxin</b>	<b>pg/mL</b>	1.585	10225	3.6	15
<b>GCP-2</b>	<b>ng/mL</b>	0.0735	475	0.29	0.45
<b>IP-10</b>	<b>pg/mL</b>	8.55	55000	17	54
<b>ITAC</b>	<b>pg/mL</b>	23.3	150000	74	139
<b>MCP-1</b>	<b>pg/mL</b>	2.855	18400	9.0	18
<b>M-CSF</b>	<b>ng/mL</b>	0.004655	30	0.0085	0.046
<b>MDC</b>	<b>pg/mL</b>	1.035	6700	1.5	4.1
<b>MIP-1<math>\alpha</math></b>	<b>pg/mL</b>	237	1522500	1833	2244
<b>MIP-1<math>\beta</math></b>	<b>pg/mL</b>	1.755	11250	2.0	7.6

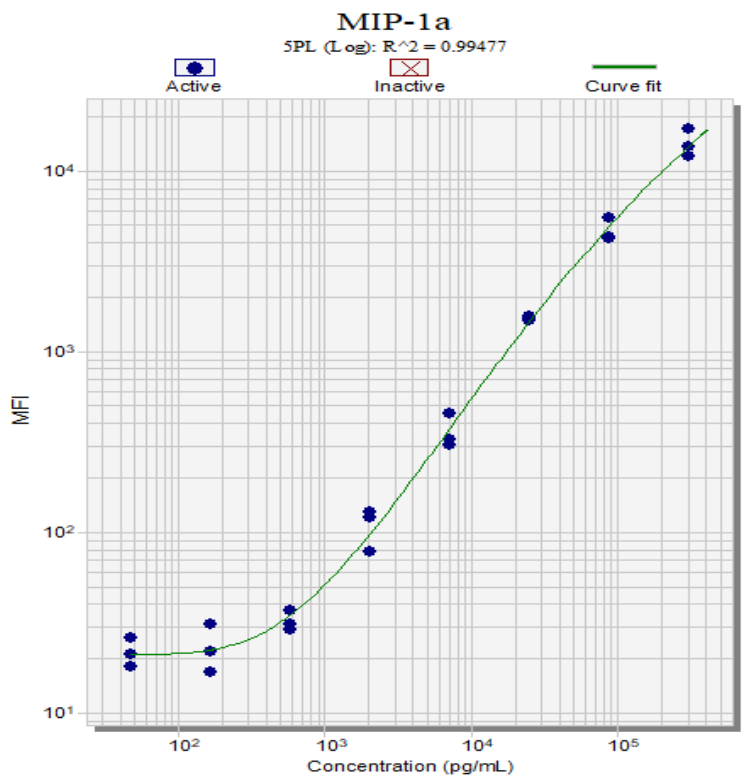
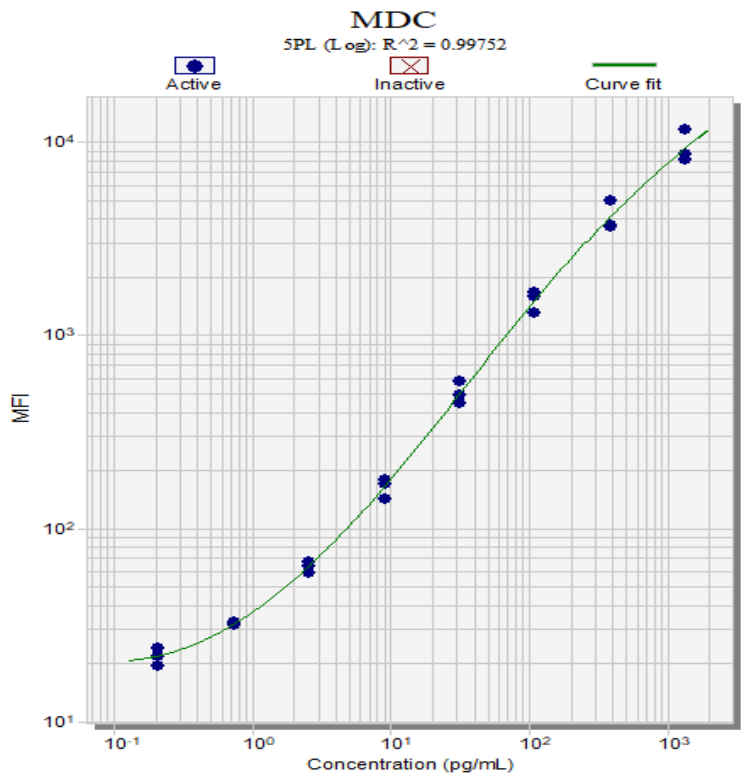


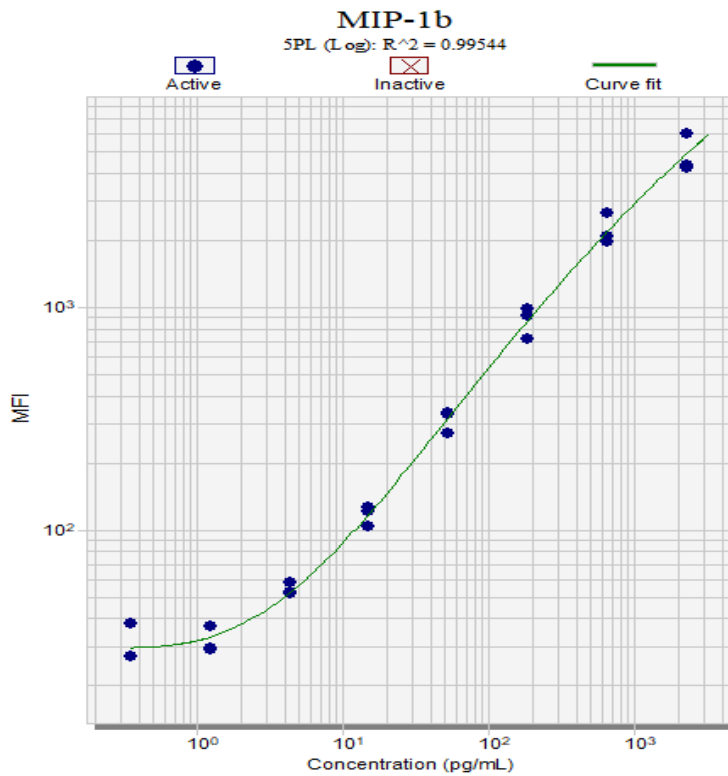












c) Precision:

CCL1		1	2	3	Inter
Control 1	Mean	16	13	18	16
	% CV	10%	1%	3%	13%
Control 2	Mean	758	789	757	768
	% CV	3%	3%	13%	4%

CCL6		1	2	3	Inter
Control 1	Mean	0.057	0.045	0.060	0.054
	% CV	9%	15%	1%	15%
Control 2	Mean	2.4	1.7	2.3	2.1
	% CV	3%	1%	4%	15%

Eotaxin		1	2	3	Inter
Control 1	Mean	7.7	7.4	10	8.4
	% CV	17%	6%	1%	17%
Control 2	Mean	388	362	421	390
	% CV	1%	3%	7%	8%

<b>GCP-2</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>Inter</b>
<b>Control 1</b>	<b>Mean</b>	0.46	0.39	0.37	<b>0.41</b>
	<b>% CV</b>	9%	9%	9%	<b>13%</b>
<b>Control 2</b>	<b>Mean</b>	8.6	6.8	8.7	<b>8.0</b>
	<b>% CV</b>	1%	3%	2%	<b>12%</b>

<b>IP-10</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>Inter</b>
<b>Control 1</b>	<b>Mean</b>	24	33	34	<b>31</b>
	<b>% CV</b>	4%	8%	7%	<b>15%</b>
<b>Control 2</b>	<b>Mean</b>	1380	1233	1633	<b>1416</b>
	<b>% CV</b>	1%	1%	5%	<b>13%</b>

<b>ITAC</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>Inter</b>
<b>Control 1</b>	<b>Mean</b>	204	148	202	<b>185</b>
	<b>% CV</b>	8%	2%	4%	<b>16%</b>
<b>Control 2</b>	<b>Mean</b>	2990	2957	3883	<b>3277</b>
	<b>% CV</b>	3%	1%	3%	<b>14%</b>

<b>MCP-1</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>Inter</b>
<b>Control 1</b>	<b>Mean</b>	16	12	17	<b>15</b>
	<b>% CV</b>	11%	10%	1%	<b>16%</b>
<b>Control 2</b>	<b>Mean</b>	759	641	733	<b>711</b>
	<b>% CV</b>	2%	5%	2%	<b>8%</b>

<b>M-CSF</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>Inter</b>
<b>Control 1</b>	<b>Mean</b>	0.075	0.12	0.094	<b>0.10</b>
	<b>% CV</b>	4%	4%	2%	<b>19%</b>
<b>Control 2</b>	<b>Mean</b>	1.1	1.0	1.3	<b>1.1</b>
	<b>% CV</b>	4%	2%	3%	<b>13%</b>

<b>MDC</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>Inter</b>
<b>Control 1</b>	<b>Mean</b>	2.1	1.8	2.4	<b>2.1</b>
	<b>% CV</b>	11%	11%	4%	<b>14%</b>
<b>Control 2</b>	<b>Mean</b>	118	107	122	<b>116</b>
	<b>% CV</b>	6%	5%	10%	<b>9%</b>

MIP-1 $\alpha$		1	2	3	Inter
Control 1	Mean	2993	2403	2737	2711
	% CV	7%	4%	3%	10%
Control 2	Mean	56767	51400	72400	60189
	% CV	4%	1%	2%	16%

MIP-1 $\beta$		1	2	3	Inter
Control 1	Mean	21	19	21	20
	% CV	13%	6%	3%	10%
Control 2	Mean	767	919	956	880
	% CV	9%	12%	7%	13%

d) Linearity:

CCL1				
pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	1670	143	190	243
1:4	673	74	105	148
1:8	302	43	60	70
1:16	172	27	35	40
2	81%	103%	110%	122%
4	72%	117%	115%	95%
8	82%	126%	116%	113%

CCL6				
ng/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	6.5	9.2	15	18
1:4	4.0	3.8	5.9	12
1:8	2.1	1.8	3.3	7.1
1:16	1.2	1.0	2.0	3.8
2	124%	83%	77%	130%
4	104%	81%	86%	122%
8	119%	87%	105%	107%

<b>Eotaxin</b>				
<b>pg/mL</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:2</b>	1435	2355	3190	3290
<b>1:4</b>	813	1255	1625	1730
<b>1:8</b>	392	608	848	903
<b>1:16</b>	205	343	431	419
<b>2</b>	113%	107%	102%	105%
<b>4</b>	96%	97%	104%	104%
<b>8</b>	105%	113%	102%	93%

<b>GCP-2</b>				
<b>ng/mL</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:2</b>	26	13	35	85
<b>1:4</b>	11	7.5	17	52
<b>1:8</b>	5.1	4.0	8.8	29
<b>1:16</b>	2.4	2.1	5.0	17
<b>2</b>	84%	113%	96%	121%
<b>4</b>	78%	120%	101%	112%
<b>8</b>	73%	125%	114%	120%

<b>IP-10</b>				
<b>pg/mL</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:2</b>	3125	5187	605	668
<b>1:4</b>	1860	2403	282	334
<b>1:8</b>	992	1096	103	119
<b>1:16</b>	563	571	<LLOQ	<LLOQ
<b>2</b>	119%	93%	93%	100%
<b>4</b>	107%	84%	73%	71%
<b>8</b>	114%	88%	<LLOQ	<LLOQ

<b>ITAC</b>				
<b>pg/mL</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:2</b>	10010	34100	13000	19700
<b>1:4</b>	5070	19750	5770	10020
<b>1:8</b>	2245	7850	3385	5875
<b>1:16</b>	1110	4445	2070	2945
<b>2</b>	101%	116%	89%	102%
<b>4</b>	89%	79%	117%	117%
<b>8</b>	99%	113%	122%	100%

<b>MCP-1</b>				
<b>pg/mL</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:2</b>	1383	2805	2015	3200
<b>1:4</b>	578	1410	924	1940
<b>1:8</b>	253	665	463	1060
<b>1:16</b>	133	371	231	615
<b>2</b>	84%	101%	92%	121%
<b>4</b>	73%	95%	92%	109%
<b>8</b>	77%	106%	92%	116%

<b>M-CSF</b>				
<b>ng/mL</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:2</b>	2.9	5.8	2.8	4.2
<b>1:4</b>	1.2	2.8	1.4	2.6
<b>1:8</b>	0.56	1.2	0.73	1.5
<b>1:16</b>	0.36	0.62	0.42	0.84
<b>2</b>	85%	98%	97%	123%
<b>4</b>	76%	84%	103%	118%
<b>8</b>	98%	86%	118%	110%

<b>MDC</b>				
<b>pg/mL</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:2</b>	438	493	321	379
<b>1:4</b>	263	289	168	218
<b>1:8</b>	129	139	93	118
<b>1:16</b>	74	80	49	57
<b>2</b>	120%	117%	104%	115%
<b>4</b>	98%	96%	110%	108%
<b>8</b>	114%	116%	105%	96%

<b>MIP-1<math>\alpha</math></b>				
<b>pg/mL</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:2</b>	85800	140500	92900	137000
<b>1:4</b>	43050	78100	47350	73000
<b>1:8</b>	18300	37000	22450	36700
<b>1:16</b>	8175	18400	11150	16450
<b>2</b>	100%	111%	102%	107%
<b>4</b>	85%	95%	95%	101%
<b>8</b>	89%	99%	99%	90%

MIP-1 $\beta$					
pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2	
1:2	1135	134	125	149	
1:4	689	76	68	83	
1:8	370	47	32	42	
1:16	222	22	14	16	
2	121%	113%	110%	111%	
4	107%	125%	95%	101%	
8	120%	95%	89%	74%	

e) Freeze/thaw stability:

		CCL1			
		pg/mL			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	264	70	110	137
	FT-1X	273	77	97	129
	FT-2X	254	79	107	164
	FT-3X	245	68	109	129
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	103%	109%	88%	95%
	FT-2X	96%	112%	97%	120%
	FT-3X	93%	97%	99%	95%

		CCL6			
		ng/mL			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	1.0	0.26	15	15
	FT-1X	1.1	0.26	13	14
	FT-2X	1.0	0.26	13	14
	FT-3X	1.0	0.23	16	14
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	101%	99%	89%	93%
	FT-2X	100%	99%	90%	94%
	FT-3X	98%	87%	106%	91%



		<b>Eotaxin</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	119	1280	2055	2100
	FT-1X	109	1245	1840	1930
	FT-2X	116	1285	2010	1900
	FT-3X	117	1245	2225	1970
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	92%	97%	90%	92%
	FT-2X	98%	100%	98%	90%
	FT-3X	98%	97%	108%	94%

		<b>GCP-2</b>			
		<b>ng/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	3.3	14	36	55
	FT-1X	3.3	14	33	52
	FT-2X	3.0	14	35	65
	FT-3X	2.9	14	35	53
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	101%	99%	91%	95%
	FT-2X	93%	104%	96%	119%
	FT-3X	90%	100%	97%	97%

		<b>IP-10</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	372	71	403	439
	FT-1X	374	52	352	394
	FT-2X	390	67	381	384
	FT-3X	334	60	435	402
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	101%	73%	87%	90%
	FT-2X	105%	94%	95%	87%
	FT-3X	90%	85%	108%	92%

		ITAC				
		pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X		497	21100	8300	11800
	FT-1X		522	20250	6290	10600
	FT-2X		527	21000	6495	12700
	FT-3X		431	19950	7085	8890
% Control	FT-0X		100%	100%	100%	100%
	FT-1X		105%	96%	76%	90%
	FT-2X		106%	100%	78%	108%
	FT-3X		87%	95%	85%	75%

		MCP-1				
		pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X		150	2150	2025	2760
	FT-1X		159	2115	1820	2630
	FT-2X		152	2210	1930	3320
	FT-3X		157	2090	2105	2660
% Control	FT-0X		100%	100%	100%	100%
	FT-1X		106%	98%	90%	95%
	FT-2X		101%	103%	95%	120%
	FT-3X		105%	97%	104%	96%

		M-CSF				
		ng/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X		0.38	3.9	2.8	3.3
	FT-1X		0.40	3.9	2.7	3.3
	FT-2X		0.40	3.9	2.9	3.5
	FT-3X		0.41	3.8	3.0	3.3
% Control	FT-0X		100%	100%	100%	100%
	FT-1X		103%	100%	95%	98%
	FT-2X		104%	101%	102%	105%
	FT-3X		106%	98%	104%	98%

	MDC				
	pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	50	282	193	220
	FT-1X	52	277	177	208
	FT-2X	49	283	187	212
	FT-3X	50	267	208	215
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	103%	98%	91%	94%
	FT-2X	98%	100%	97%	96%
	FT-3X	99%	95%	108%	98%

	MIP-1 $\alpha$				
	pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	8025	114500	75900	121000
	FT-1X	7800	108000	69500	111000
	FT-2X	7500	116000	73050	128000
	FT-3X	8095	107500	81150	111500
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	97%	94%	92%	92%
	FT-2X	93%	101%	96%	106%
	FT-3X	101%	94%	107%	92%

	MIP-1 $\beta$				
	pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	198	81	80	97
	FT-1X	192	79	76	90
	FT-2X	202	82	75	109
	FT-3X	189	75	87	97
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	97%	97%	95%	94%
	FT-2X	102%	100%	93%	113%
	FT-3X	95%	93%	108%	100%

f) Bench Top Stability:

		<b>CCL1</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	283	99	131	141
	2hr RT	300	69	129	144
	2hr 4C	267	82	120	125
	4hr 4C	293	84	120	134
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	106%	70%	98%	102%
	2hr 4C	95%	83%	91%	88%
	4hr 4C	104%	86%	91%	95%

		<b>CCL6</b>			
		<b>ng/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	1.1	0.33	17	15
	2hr RT	0.94	0.28	14	14
	2hr 4C	1.1	0.30	14	13
	4hr 4C	1.1	0.29	14	14
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	86%	86%	83%	95%
	2hr 4C	97%	91%	84%	85%
	4hr 4C	96%	88%	83%	89%

		<b>Eotaxin</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	117	1590	2225	2070
	2hr RT	138	1120	2140	1995
	2hr 4C	123	1235	1980	1745
	4hr 4C	135	1355	2115	2025
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	118%	70%	96%	96%
	2hr 4C	105%	78%	89%	84%
	4hr 4C	115%	85%	95%	98%

		<b>GCP-2</b>			
		<b>ng/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	3.5	17	40	55
	2hr RT	4.0	14	36	55
	2hr 4C	3.6	15	37	50
	4hr 4C	3.5	16	36	52
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	114%	81%	91%	100%
	2hr 4C	104%	88%	92%	91%
	4hr 4C	99%	91%	91%	95%

		<b>IP-10</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	386	221	501	488
	2hr RT	364	259	429	425
	2hr 4C	385	224	423	381
	4hr 4C	384	257	448	425
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	94%	100%	86%	87%
	2hr 4C	100%	117%	85%	78%
	4hr 4C	99%	101%	90%	87%

		<b>ITAC</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	665	8415	12250	11705
	2hr RT	685	10285	8580	14065
	2hr 4C	654	8050	12650	12595
	4hr 4C	659	9360	12500	14540
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	103%	122%	70%	120%
	2hr 4C	98%	96%	103%	108%
	4hr 4C	99%	111%	102%	124%

		<b>MCP-1</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	206	2610	2250	2850
	2hr RT	249	1880	2000	2770
	2hr 4C	206	2100	1930	2480
	4hr 4C	200	2185	2010	2700
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	121%	72%	89%	97%
	2hr 4C	100%	80%	86%	87%
	4hr 4C	97%	84%	89%	95%

		<b>M-CSF</b>			
		<b>ng/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	0.45	5.0	3.2	3.5
	2hr RT	0.49	3.5	3.1	3.5
	2hr 4C	0.46	3.8	2.9	3.2
	4hr 4C	0.46	4.2	3.1	3.3
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	108%	71%	95%	98%
	2hr 4C	101%	77%	90%	90%
	4hr 4C	101%	85%	95%	92%

		<b>MDC</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	53	339	211	221
	2hr RT	58	247	204	220
	2hr 4C	52	266	187	194
	4hr 4C	56	309	198	224
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	109%	73%	97%	100%
	2hr 4C	99%	79%	89%	88%
	4hr 4C	107%	91%	94%	101%

		<b>MIP-1<math>\alpha</math></b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	10260	140000	86900	121500
	2hr RT	10160	100950	77400	119000
	2hr 4C	9900	112500	76450	105500
	4hr 4C	9025	118500	79700	111500
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	99%	72%	89%	98%
	2hr 4C	96%	80%	88%	87%
	4hr 4C	88%	85%	92%	92%

		<b>MIP-1<math>\beta</math></b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	204	99	96	104
	2hr RT	212	74	87	97
	2hr 4C	209	82	85	88
	4hr 4C	216	89	85	97
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	104%	74%	91%	94%
	2hr 4C	102%	83%	88%	84%
	4hr 4C	106%	89%	88%	93%

### **Panel 3**

a) Control and Sample Description:

<b>Control</b>	<b>Description</b>
Control 1	Normal Mouse Serum (20%) spiked with low levels of Recombinant GM-CSF, IFN- $\beta$ , IL-17, IL-18, IL-22, IL-23, IL-27, IL-28, IL-9, MIP-2, TSLP and VEGF.
Control 2	Normal Mouse Serum (20%) spiked with Recombinant GM-CSF, IFN- $\beta$ , IL-17, IL-18, IL-22, IL-23, IL-27, IL-28, IL-9, MIP-2, TSLP and VEGF.

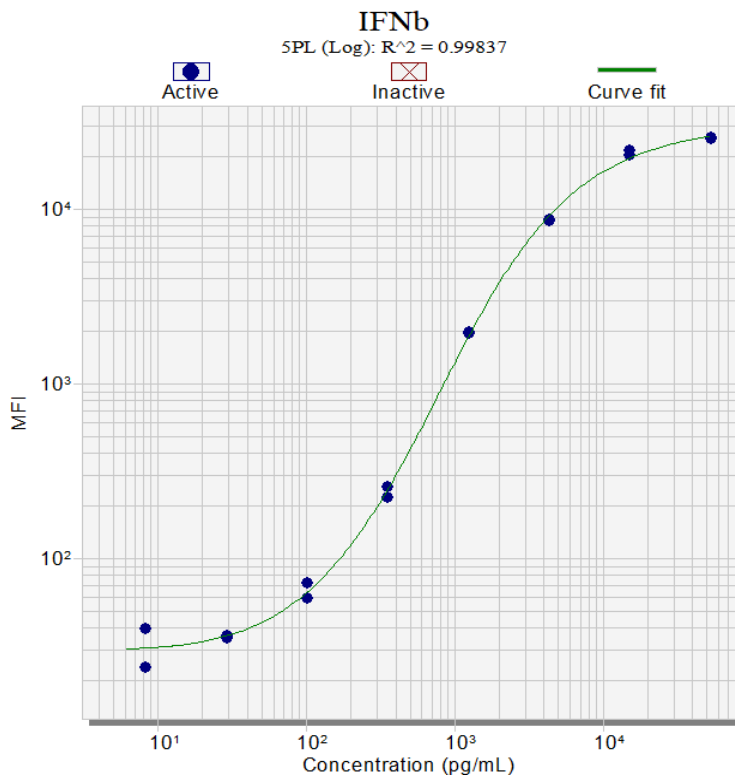
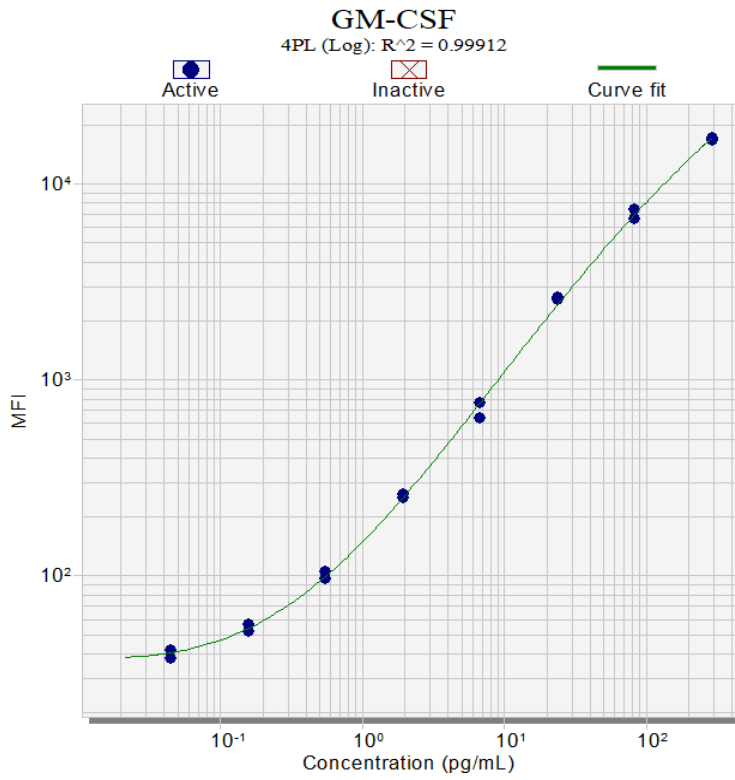
<b>Sample</b>	<b>Description</b>
Serum 1	Normal Mouse Serum (50%) spiked with Recombinant GM-CSF, IFN- $\beta$ , IL-17, IL-18, IL-22, IL-23, IL-27, IL-28, IL-9, MIP-2, TSLP and VEGF.
Serum 2	Normal Mouse Serum (50%) spiked with Recombinant GM-CSF, IFN- $\beta$ , IL-17, IL-18, IL-22, IL-23, IL-27, IL-28, IL-9, MIP-2, TSLP and VEGF.
Plasma 1	Normal Mouse Plasma (50%) spiked with Recombinant GM-CSF, IFN- $\beta$ , IL-17, IL-18, IL-22, IL-23, IL-27, IL-28, IL-9, MIP-2, TSLP and VEGF.
Plasma 2	Normal Mouse Plasma (50%) spiked with Recombinant GM-CSF, IFN- $\beta$ , IL-17, IL-18, IL-22, IL-23, IL-27, IL-28, IL-9, MIP-2, TSLP and VEGF.

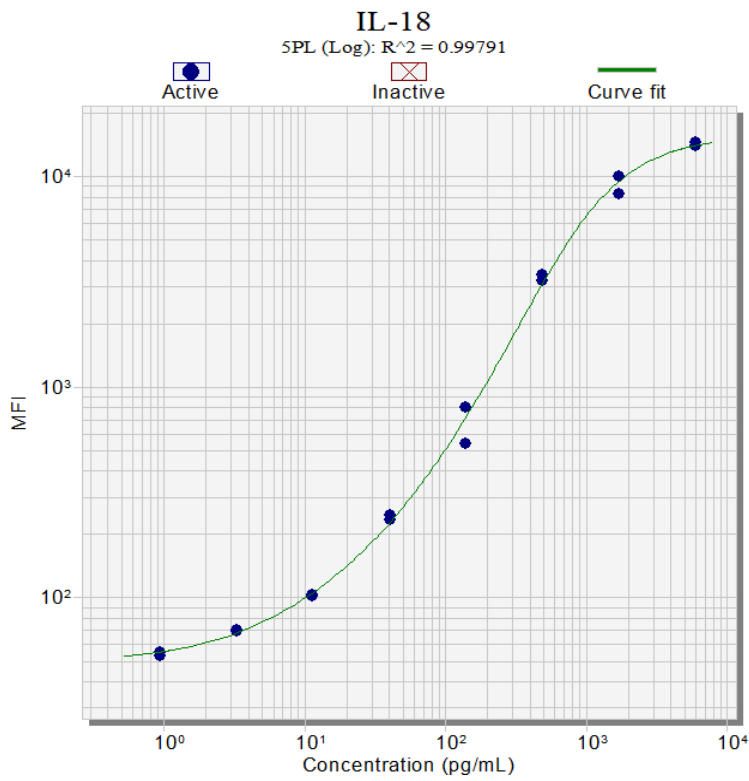
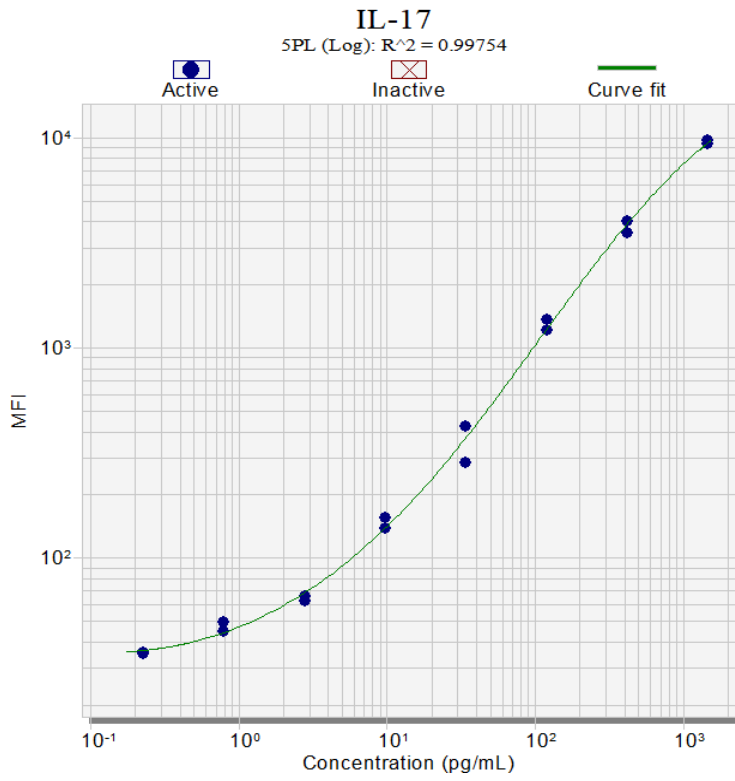


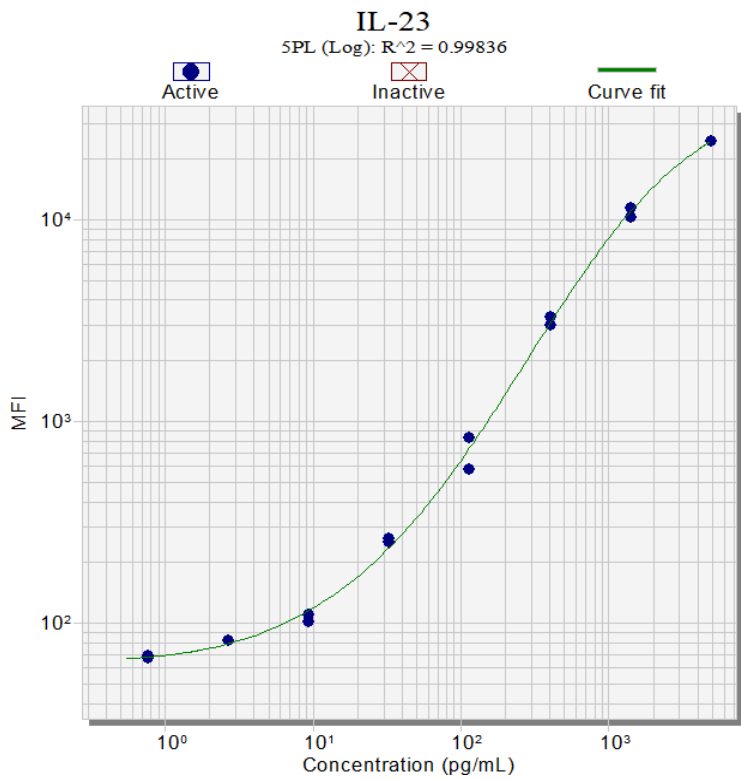
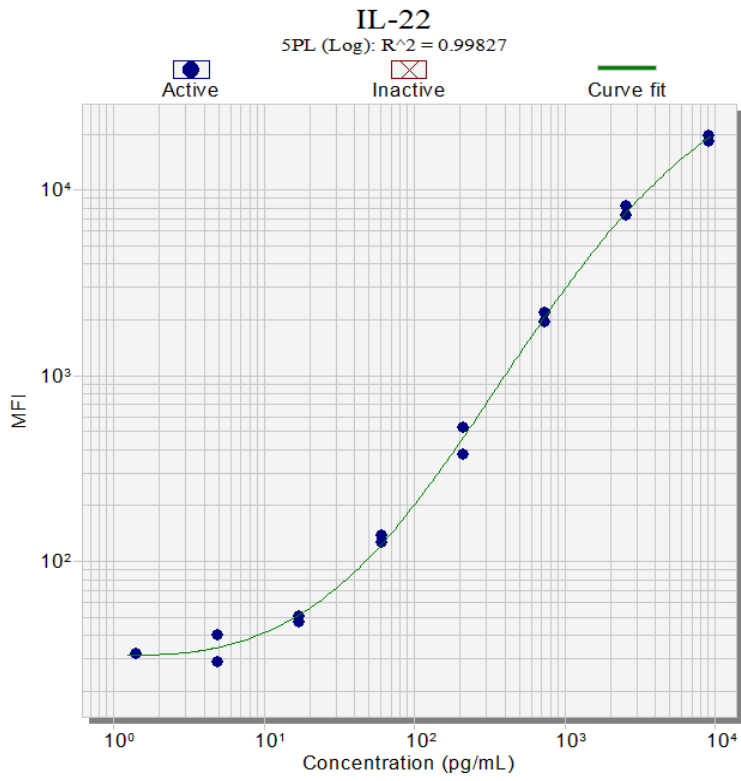
b) Representative LLOQ, LDD and Curves:

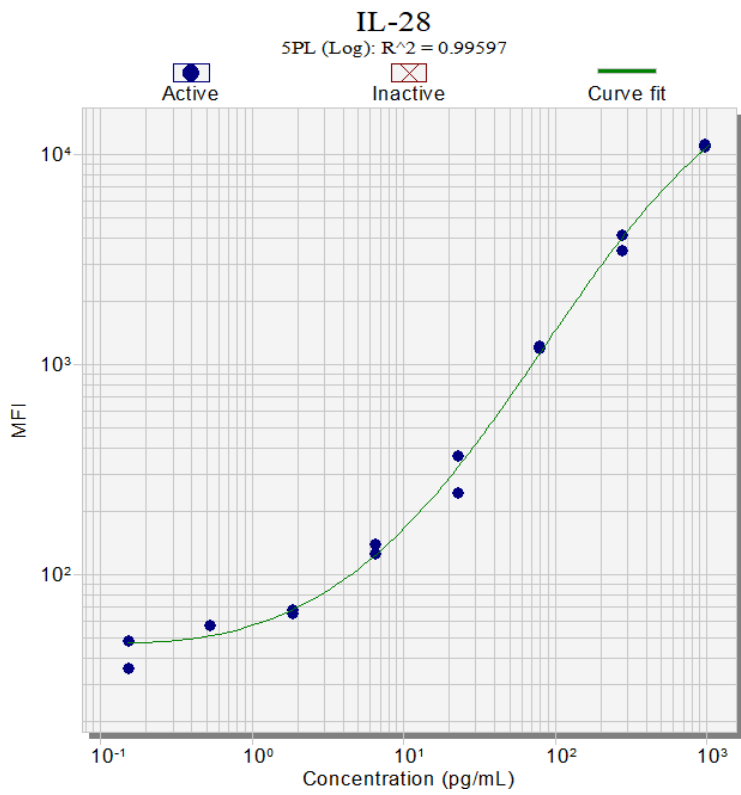
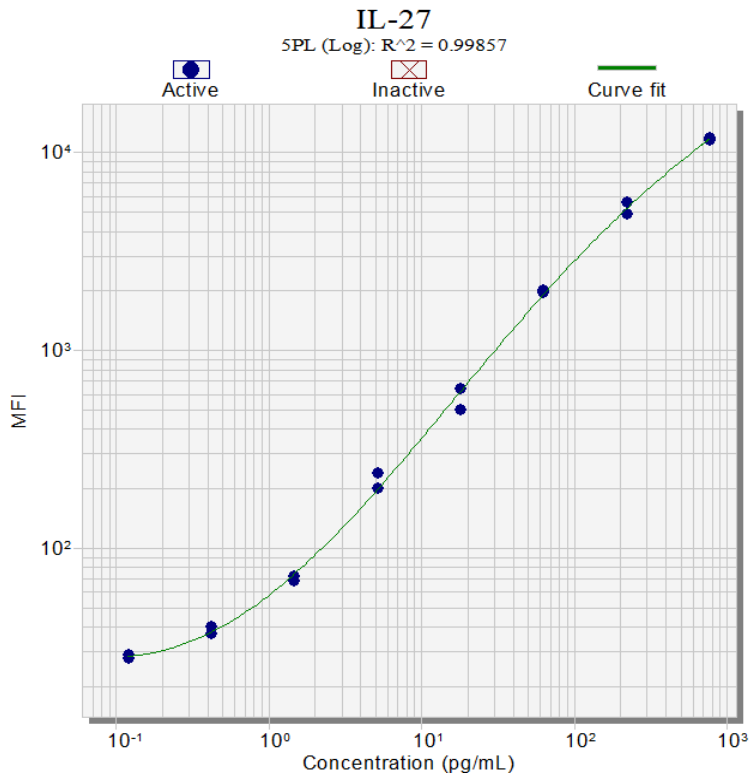
		<b>S1</b>	<b>S8</b>	<b>LDD</b>	<b>LLOQ</b>
<b>GM-CSF</b>	<b>pg/mL</b>	0.045	290	0.24	0.44
<b>IFN<math>\beta</math></b>	<b>pg/mL</b>	8.3	53275	43	63
<b>IL-17</b>	<b>pg/mL</b>	0.23	1460	1.1	3.5
<b>IL-18</b>	<b>pg/mL</b>	0.93	5970	3.9	5.6
<b>IL-22</b>	<b>pg/mL</b>	1.4	9000	8.0	17
<b>IL-23</b>	<b>pg/mL</b>	0.76	4885	5.9	9.0
<b>IL-27</b>	<b>pg/mL</b>	0.12	773	0.24	0.67
<b>IL-28</b>	<b>pg/mL</b>	0.15	975	1.8	2.9
<b>IL-9</b>	<b>pg/mL</b>	3.1	19860	39	76
<b>MIP-2</b>	<b>pg/mL</b>	0.13	800	0.46	1.3
<b>TSLP</b>	<b>pg/mL</b>	0.11	715	0.16	0.66
<b>VEGF</b>	<b>pg/mL</b>	0.17	1100	0.38	2.3

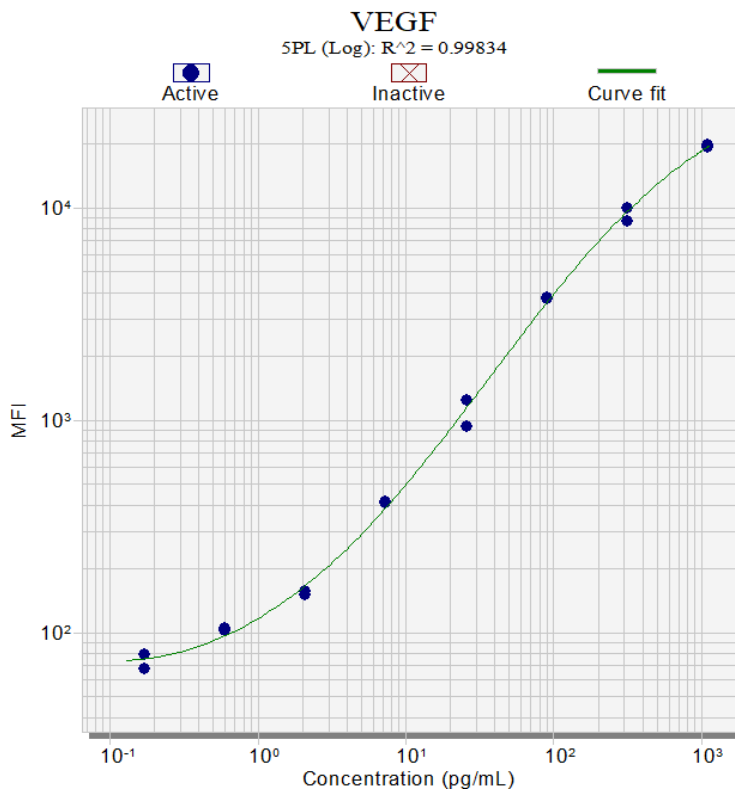
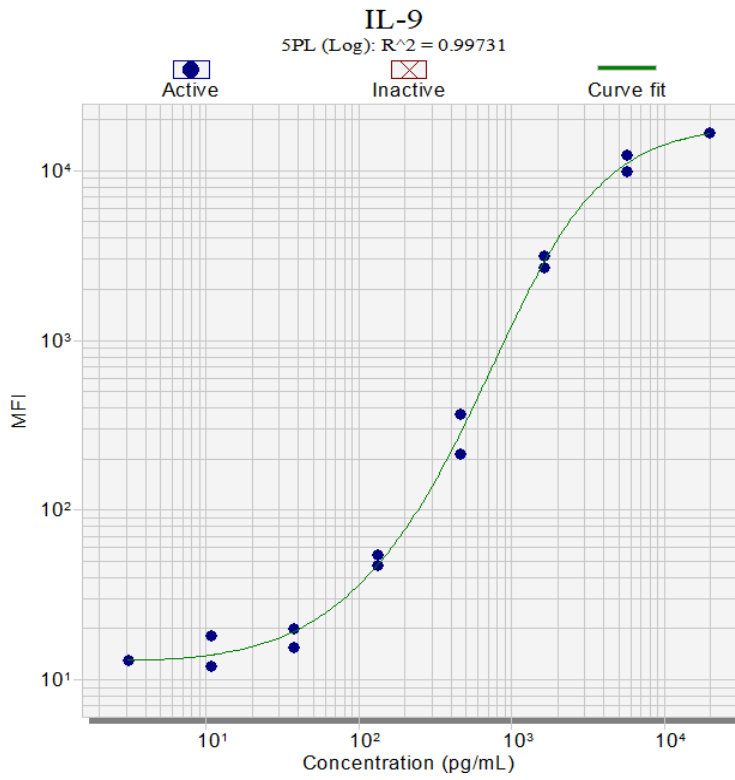
<b>X Dilution Factor</b>		<b>S1</b>	<b>S8</b>	<b>LDD</b>	<b>LLOQ</b>
<b>GM-CSF</b>	<b>pg/mL</b>	0.22	1450	1.2	2.2
<b>IFN<math>\beta</math></b>	<b>pg/mL</b>	41	266375	213	315
<b>IL-17</b>	<b>pg/mL</b>	1.1	7300	5.7	18
<b>IL-18</b>	<b>pg/mL</b>	4.7	29850	20	28
<b>IL-22</b>	<b>pg/mL</b>	7.0	45000	40	85
<b>IL-23</b>	<b>pg/mL</b>	3.8	24425	29	45
<b>IL-27</b>	<b>pg/mL</b>	0.60	3865	1.2	3.4
<b>IL-28</b>	<b>pg/mL</b>	0.76	4875	9.0	15
<b>IL-9</b>	<b>pg/mL</b>	15	99300	193	380
<b>MIP-2</b>	<b>pg/mL</b>	0.63	4000	2.3	6.5
<b>TSLP</b>	<b>pg/mL</b>	0.56	3575	0.82	3.3
<b>VEGF</b>	<b>pg/mL</b>	0.86	5500	1.9	12

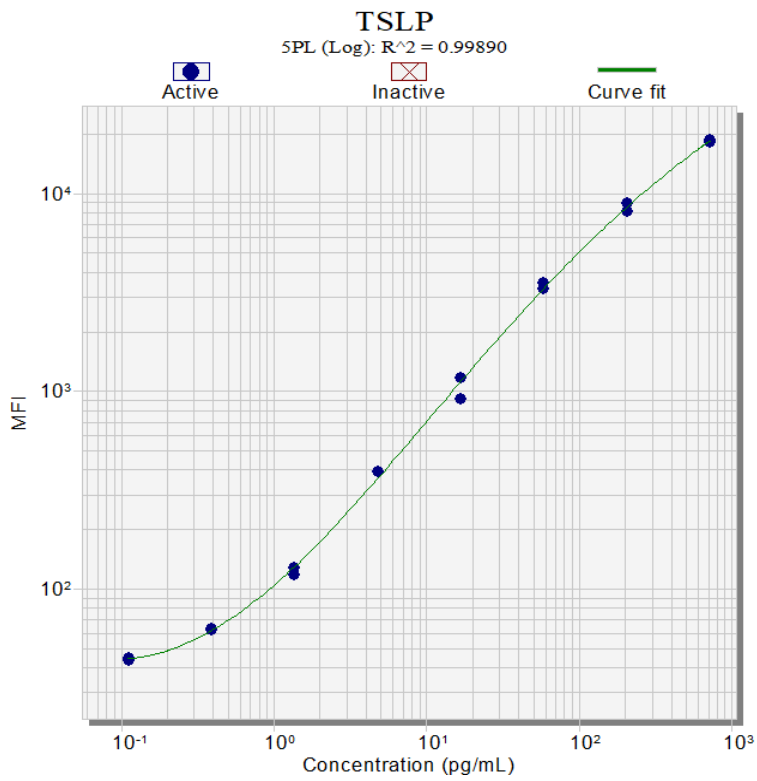
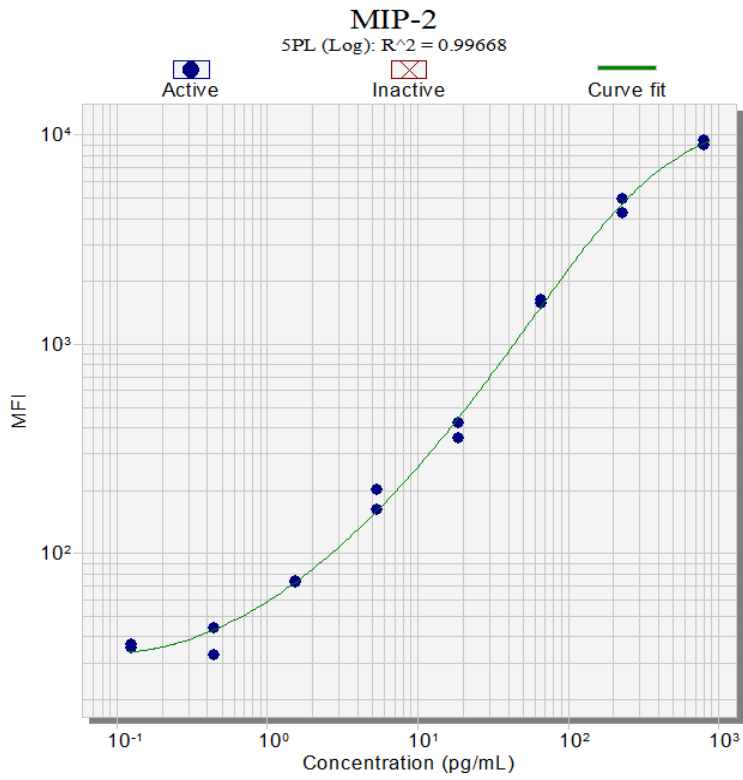












c) Precision:

GM-CSF		1	2	3	Inter
Control 1	Mean	2.9	2.6	2.7	2.8
	% CV	9%	8%	3%	8%
Control 2	Mean	37	33	38	36
	% CV	8%	1%	7%	9%

IFN $\beta$		1	2	3	Inter
Control 1	Mean	317	337	308	318
	% CV	6%	12%	9%	8%
Control 2	Mean	2903	3215	2630	2879
	% CV	2%	0%	2%	9%

IL-17		1	2	3	Inter
Control 1	Mean	69	68	68	69
	% CV	5%	6%	3%	4%
Control 2	Mean	1027	1150	941	1026
	% CV	6%	4%	3%	9%

IL-18		1	2	3	Inter
Control 1	Mean	115	98	121	113
	% CV	4%	8%	9%	11%
Control 2	Mean	1004	741	898	898
	% CV	5%	7%	2%	13%

IL-22		1	2	3	Inter
Control 1	Mean	148	151	169	156
	% CV	2%	0%	3%	7%
Control 2	Mean	1270	1185	1260	1245
	% CV	3%	4%	2%	4%

IL-23		1	2	3	Inter
Control 1	Mean	69	75	72	72
	% CV	7%	16%	3%	8%
Control 2	Mean	560	546	588	567
	% CV	5%	2%	1%	4%



IL-27		1	2	3	Inter
Control 1	Mean	22	22	23	23
	% CV	6%	6%	3%	5%
Control 2	Mean	367	358	353	360
	% CV	3%	1%	2%	3%

IL-28		1	2	3	Inter
Control 1	Mean	38	33	37	36
	% CV	4%	6%	6%	7%
Control 2	Mean	381	320	343	352
	% CV	2%	3%	7%	8%

IL-9		1	2	3	Inter
Control 1	Mean	592	521	601	578
	% CV	6%	5%	4%	7%
Control 2	Mean	2837	2610	2763	2753
	% CV	3%	3%	5%	5%

MIP-2		1	2	3	Inter
Control 1	Mean	44	37	40	41
	% CV	4%	6%	5%	9%
Control 2	Mean	489	469	408	454
	% CV	6%	7%	7%	10%

TSLP		1	2	3	Inter
Control 1	Mean	18	17	17	17
	% CV	8%	5%	7%	7%
Control 2	Mean	209	201	217	210
	% CV	5%	4%	4%	5%

VEGF		1	2	3	Inter
Control 1	Mean	6.1	5.7	6.0	6.0
	% CV	13%	12%	5%	9%
Control 2	Mean	74	68	77	73
	% CV	5%	2%	9%	8%

d) Linearity:

GM-CSF				
pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	42	18	133	11
1:4	21	8.3	68	4.9
1:8	12	4.4	40	2.0
1:16	6.1	2.2	17	1.0
2	100%	93%	103%	92%
4	116%	99%	120%	76%
8	115%	98%	104%	72%

IFN $\beta$				
pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	7815	1993	27400	2370
1:4	3805	936	12150	1150
1:8	1905	422	6465	609
1:16	993	286	2815	313
2	97%	94%	89%	97%
4	98%	85%	94%	103%
8	102%	115%	82%	105%

IL-17				
pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	218	200	763	62
1:4	85	114	316	28
1:8	53	59	175	13
1:16	30	32	77	8.8
2	78%	114%	83%	90%
4	97%	119%	91%	85%
8	109%	127%	81%	113%

IL-18				
pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	606	390	898	1200
1:4	299	210	581	591
1:8	159	117	273	382
1:16	98	47	139	190
2	99%	108%	129%	98%
4	105%	120%	121%	127%
8	130%	96%	123%	127%

IL-22

pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	1325	538	4235	312
1:4	695	255	2065	138
1:8	382	120	1095	78
1:16	192	63	462	31
2	105%	95%	98%	88%
4	115%	89%	103%	100%
8	116%	93%	87%	78%

IL-23				
pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	738	214	2205	718
1:4	380	89	1140	335
1:8	212	46	422	194
1:16	102	33	255	109
2	103%	83%	103%	93%
4	115%	86%	77%	108%
8	110%	123%	93%	121%

IL-27				
pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	53	91	345	20
1:4	33	41	189	10
1:8	13	20	98	5.3
1:16	6.5	8.1	38	2.7
2	123%	91%	110%	100%
4	101%	90%	114%	108%
8	98%	72%	87%	111%

IL-28				
pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	148	219	486	44
1:4	82	109	240	23
1:8	42	52	136	14
1:16	22	26	57	8.8
2	112%	100%	99%	103%
4	113%	96%	112%	124%
8	121%	96%	95%	<LLOQ

IL-9				
pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	2975	1530	9495	915
1:4	1695	731	4780	460
1:8	854	315	2550	228
1:16	439	265	1355	145
2	114%	96%	101%	101%
4	115%	82%	107%	100%
8	118%	<LLOQ	114%	126%

MIP-2				
pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	151	80	463	36
1:4	72	41	218	20
1:8	42	15	114	11
1:16	18	9.1	44	4.9
2	95%	103%	94%	114%
4	111%	74%	98%	123%
8	96%	91%	76%	110%

TSLP				
pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	111	67	351	32
1:4	56	31	183	16
1:8	29	15	103	9.2
1:16	13	8.7	40	4.7
2	100%	93%	104%	101%
4	105%	92%	117%	116%
8	92%	105%	90%	118%

VEGF				
pg/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	143	35	244	40
1:4	69	17	139	18
1:8	42	9.1	58	12
1:16	20	5.1	34	6.1
2	97%	97%	114%	87%
4	118%	103%	95%	122%
8	111%	115%	111%	120%

e) Freeze/thaw stability:

GM-CSF					
pg/mL		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	50	20	174	14
	FT-1X	52	17	164	13
	FT-2X	48	18	182	15
	FT-3X	52	18	176	15
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	103%	87%	94%	94%
	FT-2X	96%	90%	105%	108%
	FT-3X	104%	91%	101%	107%

IFN $\beta$					
pg/mL		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	12350	2735	47500	5280
	FT-1X	11400	2630	45850	4945
	FT-2X	11500	2595	50150	5105
	FT-3X	12050	2630	43200	5355
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	92%	96%	97%	94%
	FT-2X	93%	95%	106%	97%
	FT-3X	98%	96%	91%	101%

IL-17					
pg/mL		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	242	604	1665	144
	FT-1X	217	471	1480	126
	FT-2X	220	510	1745	140
	FT-3X	243	521	1645	140
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	90%	78%	89%	88%
	FT-2X	91%	84%	105%	97%
	FT-3X	100%	86%	99%	97%

IL-18					
pg/mL		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	649	708	1925	208
	FT-1X	607	599	1705	188
	FT-2X	567	645	1785	201
	FT-3X	632	604	1820	227
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	94%	85%	89%	90%
	FT-2X	87%	91%	93%	97%
	FT-3X	97%	85%	95%	109%

IL-22					
pg/mL		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	2550	1020	8345	1023
	FT-1X	2340	861	7730	969
	FT-2X	2325	972	8625	1006
	FT-3X	2495	938	8050	1019
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	92%	84%	93%	95%
	FT-2X	91%	95%	103%	98%
	FT-3X	98%	92%	96%	100%

IL-23					
pg/mL		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	1810	507	5755	640
	FT-1X	1780	412	5465	723
	FT-2X	1795	459	6090	714
	FT-3X	1840	455	5725	738
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	98%	81%	95%	113%
	FT-2X	99%	90%	106%	112%
	FT-3X	102%	90%	99%	115%

		<b>IL-27</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	264	189	917	75
	FT-1X	239	153	801	68
	FT-2X	246	170	951	68
	FT-3X	260	161	825	82
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	91%	81%	87%	92%
	FT-2X	93%	90%	104%	91%
	FT-3X	99%	85%	90%	110%

		<b>IL-28</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	197	238	667	66
	FT-1X	182	202	611	62
	FT-2X	191	212	730	70
	FT-3X	199	208	662	71
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	93%	85%	92%	93%
	FT-2X	97%	89%	109%	105%
	FT-3X	101%	87%	99%	107%

		<b>IL-9</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	3845	1790	11700	1010
	FT-1X	3490	1540	10720	1055
	FT-2X	3660	1625	12400	1110
	FT-3X	3760	1590	11350	1038
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	91%	86%	92%	104%
	FT-2X	95%	91%	106%	110%
	FT-3X	98%	89%	97%	103%

		<b>MIP-2</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	258	291	951	87
	FT-1X	242	232	894	77
	FT-2X	237	259	978	77
	FT-3X	262	254	930	72
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	94%	80%	94%	88%
	FT-2X	92%	89%	103%	89%
	FT-3X	101%	87%	98%	83%

		<b>TSLP</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	210	127	649	58
	FT-1X	201	102	606	53
	FT-2X	199	104	701	56
	FT-3X	205	111	648	59
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	96%	80%	93%	92%
	FT-2X	95%	82%	108%	98%
	FT-3X	98%	88%	100%	102%

		<b>VEGF</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	206	37	605	38
	FT-1X	192	29	578	35
	FT-2X	192	29	669	37
	FT-3X	207	26	618	42
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	93%	79%	96%	90%
	FT-2X	93%	80%	111%	97%
	FT-3X	101%	72%	102%	110%



f) Bench Top Stability:

		<b>GM-CSF</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	41	14	158	15
	2hr RT	53	17	167	12
	2hr 4C	49	18	194	16
	4hr 4C	45	12	161	15
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	129%	118%	106%	82%
	2hr 4C	120%	125%	122%	108%
	4hr 4C	109%	88%	102%	105%

		<b>IFN<math>\beta</math></b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	11900	2485	43750	5460
	2hr RT	12800	2820	43000	4560
	2hr 4C	12300	2530	55600	5595
	4hr 4C	12150	2200	45550	5250
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	108%	113%	98%	84%
	2hr 4C	103%	102%	127%	102%
	4hr 4C	102%	89%	104%	96%

		<b>IL-17</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	199	421	1370	117
	2hr RT	228	348	1335	138
	2hr 4C	211	428	1730	138
	4hr 4C	210	296	1335	98
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	114%	83%	97%	118%
	2hr 4C	106%	102%	126%	118%
	4hr 4C	106%	70%	97%	84%

		<b>IL-18</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	649	584	1705	265
	2hr RT	719	668	1605	313
	2hr 4C	658	604	1945	254
	4hr 4C	618	435	1630	210
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	111%	114%	94%	118%
	2hr 4C	101%	103%	114%	96%
	4hr 4C	95%	75%	96%	79%

		<b>IL-22</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	2520	868	8265	1080
	2hr RT	2810	878	7985	849
	2hr 4C	2600	917	9315	1100
	4hr 4C	2380	804	8295	1013
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	112%	101%	97%	79%
	2hr 4C	103%	106%	113%	102%
	4hr 4C	94%	93%	100%	94%

		<b>IL-23</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	1795	389	5650	758
	2hr RT	1965	448	5780	658
	2hr 4C	2075	449	6710	817
	4hr 4C	1885	353	6225	763
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	109%	115%	102%	87%
	2hr 4C	116%	115%	119%	108%
	4hr 4C	105%	91%	110%	101%

		<b>IL-27</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	244	139	859	74
	2hr RT	266	165	813	60
	2hr 4C	268	155	1080	77
	4hr 4C	239	126	867	72
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	109%	118%	95%	81%
	2hr 4C	110%	111%	126%	104%
	4hr 4C	98%	90%	101%	97%

		<b>IL-28</b>			
		<b>ng/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	176	189	604	74
	2hr RT	197	192	594	59
	2hr 4C	202	198	729	83
	4hr 4C	212	152	625	77
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	112%	101%	98%	79%
	2hr 4C	114%	104%	121%	112%
	4hr 4C	120%	80%	103%	104%

		<b>IL-9</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	3405	1510	11100	1180
	2hr RT	4015	1655	11050	856
	2hr 4C	3825	1585	12400	1145
	4hr 4C	3740	1320	10800	1185
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	118%	110%	100%	73%
	2hr 4C	112%	105%	112%	97%
	4hr 4C	110%	87%	97%	100%

		<b>MIP-2</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	218	202	777	81
	2hr RT	250	204	781	57
	2hr 4C	234	215	1000	94
	4hr 4C	228	153	784	81
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	114%	101%	101%	70%
	2hr 4C	107%	106%	129%	116%
	4hr 4C	104%	76%	101%	100%

		<b>TSLP</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	185	93	607	62
	2hr RT	219	102	658	47
	2hr 4C	208	99	741	64
	4hr 4C	197	82	636	60
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	118%	109%	108%	77%
	2hr 4C	112%	106%	122%	103%
	4hr 4C	106%	88%	105%	98%

		<b>VEGF</b>			
		<b>pg/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	185	27	571	38
	2hr RT	200	28	587	35
	2hr 4C	202	27	725	41
	4hr 4C	182	20	609	31
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	108%	103%	103%	91%
	2hr 4C	109%	99%	127%	108%
	4hr 4C	99%	74%	107%	83%

#### **Panel 4**

a) Control and Sample Description:

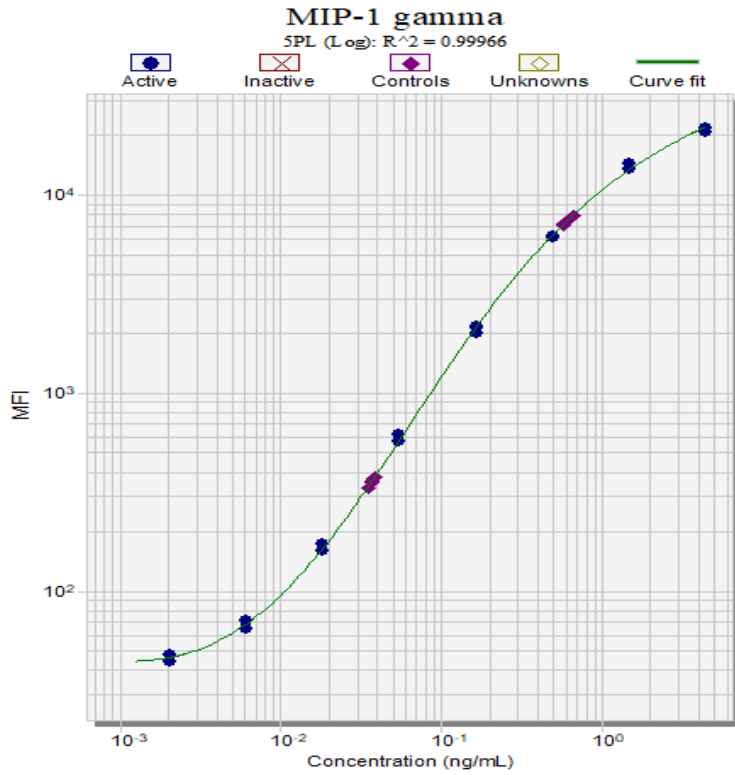
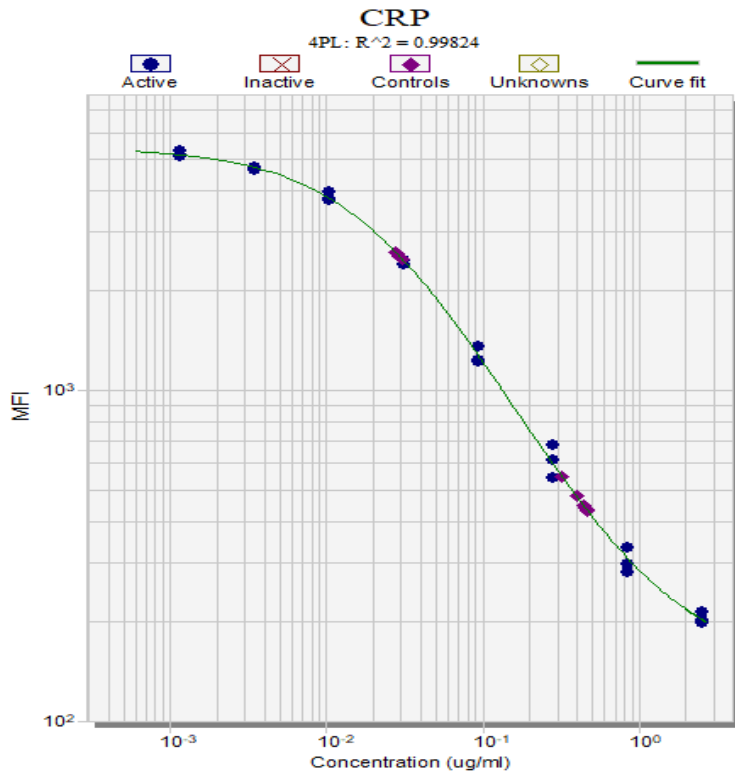
<b>Control</b>	<b>Description</b>
Control 1	Normal Mouse Serum (0.005%) spiked with Recombinant CRP, MIP-1 $\gamma$ , MMP-9, NGAL, PAI-1 and VCAM-1.
Control 2	Normal Mouse Serum (3%) spiked with Recombinant CRP, MIP-1 $\gamma$ , MMP-9, NGAL and PAI-1

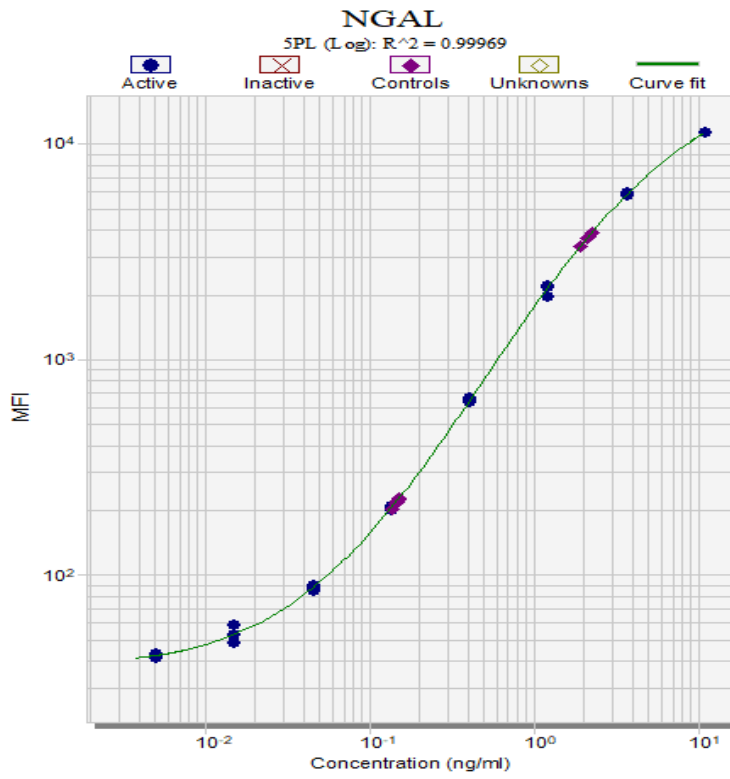
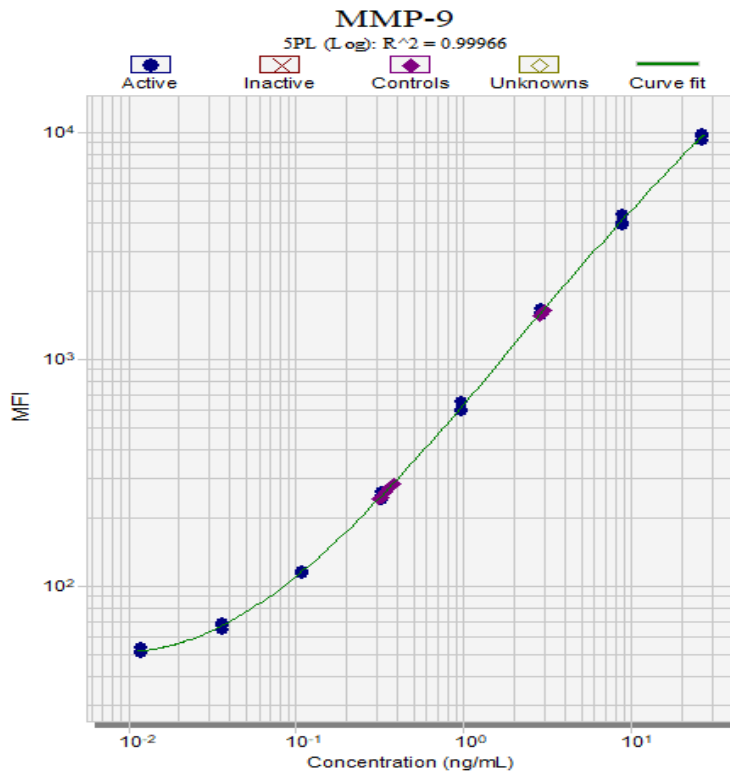
<b>Sample</b>	<b>Description</b>
Serum 1	Normal Mouse Serum (99%) spiked with Recombinant CRP, MIP-1 $\gamma$ , MMP-9, NGAL, PAI-1 and VCAM-1.
Serum 2	Normal Mouse Serum (99%) spiked with Recombinant CRP, MIP-1 $\gamma$ , MMP-9, NGAL, PAI-1 and VCAM-1.
Plasma 1	Normal Mouse Plasma (99%) spiked with Recombinant CRP, MIP-1 $\gamma$ , MMP-9, NGAL, PAI-1 and VCAM-1.
Plasma 2	Normal Mouse Plasma (99%) spiked with Recombinant CRP, MIP-1 $\gamma$ , MMP-9, NGAL, PAI-1 and VCAM-1.

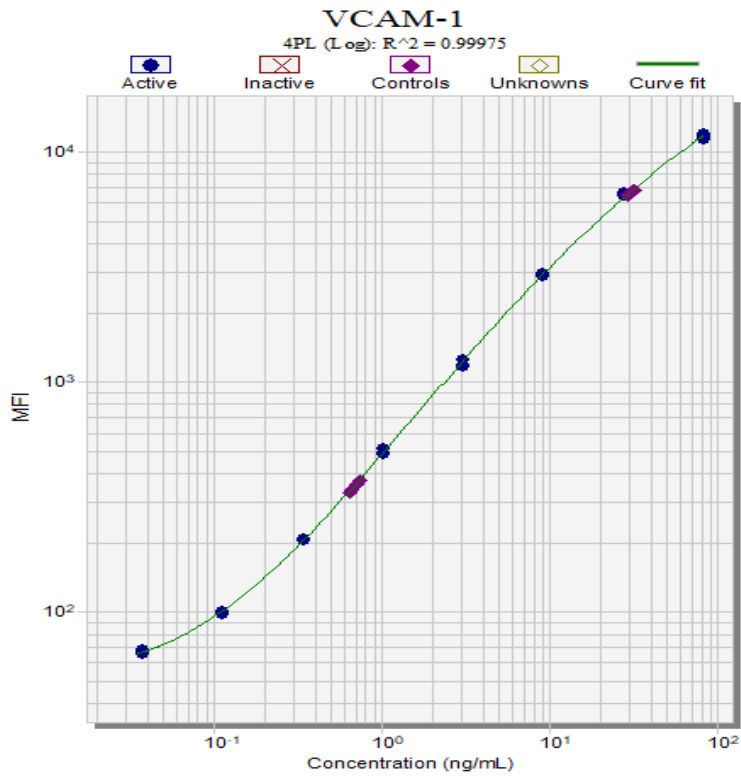
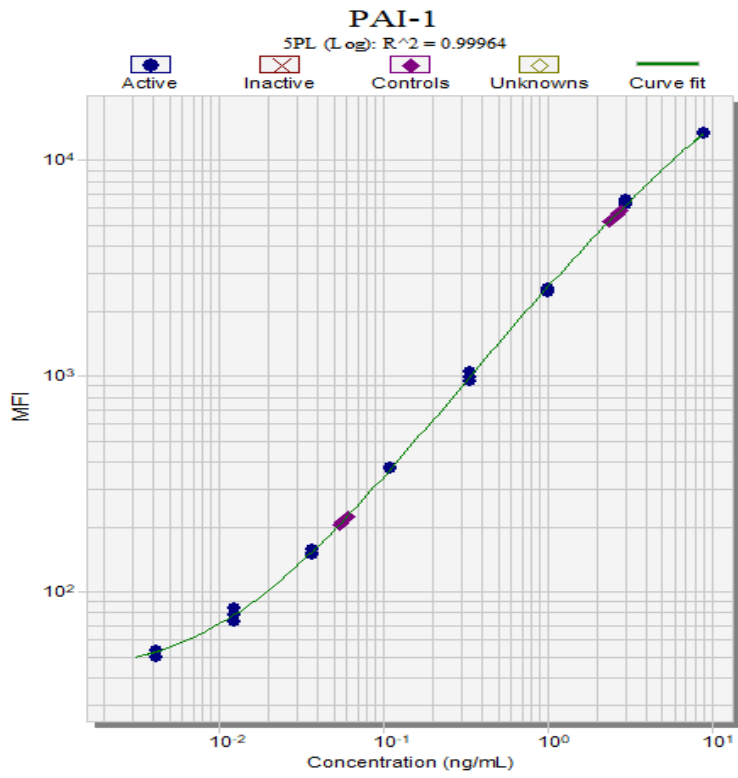
b) Representative LLOQ, LDD and Curves:

		<b>S1</b>	<b>S8</b>	<b>LDD</b>	<b>LLOQ</b>
<b>CRP</b>	<b>ug/mL</b>	0.0011	2.5	0.0011	0.0065
<b>MIP-1<math>\gamma</math></b>	<b>ng/mL</b>	0.0020	4.4	0.0020	0.0081
<b>MMP-9</b>	<b>ng/mL</b>	0.012	26	0.012	0.025
<b>NGAL</b>	<b>ng/mL</b>	0.0050	11	0.0041	0.011
<b>PAI-1</b>	<b>ng/mL</b>	0.0041	9.0	0.0050	0.0066
<b>VCAM-1</b>	<b>ng/mL</b>	0.037	82	0.037	0.052

<b>X Dilution Factor</b>		<b>S1</b>	<b>S8</b>	<b>LDD</b>	<b>LLOQ</b>
<b>CRP</b>	<b>ug/mL</b>	0.057	125	0.057	0.33
<b>MIP-1<math>\gamma</math></b>	<b>ng/mL</b>	0.1005	220	0.10	0.41
<b>MMP-9</b>	<b>ng/mL</b>	0.595	1300	0.60	1.2
<b>NGAL</b>	<b>ng/mL</b>	0.2515	550	0.21	0.55
<b>PAI-1</b>	<b>ng/mL</b>	0.205	450	0.25	0.33
<b>VCAM-1</b>	<b>ng/mL</b>	1.865	4100	1.9	2.6









c) Precision:

CRP		1	2	3	Inter
Control 1	Mean	0.028	0.027	0.029	<b>0.028</b>
	% CV	5%	5%	4%	<b>5%</b>
Control 2	Mean	0.29	0.31	0.38	<b>0.33</b>
	% CV	4%	4%	5%	<b>16%</b>

MIP-1 $\gamma$		1	2	3	Inter
Control 1	Mean	0.045	0.038	0.037	<b>0.028</b>
	% CV	4%	5%	3%	<b>10%</b>
Control 2	Mean	0.54	0.43	0.61	<b>0.53</b>
	% CV	5%	0%	7%	<b>15%</b>

MMP-9		1	2	3	Inter
Control 1	Mean	0.35	0.41	0.31	<b>0.36</b>
	% CV	2%	5%	2%	<b>12%</b>
Control 2	Mean	2.5	3.0	2.9	<b>2.8</b>
	% CV	3%	2%	3%	<b>8%</b>

NGAL		1	2	3	Inter
Control 1	Mean	0.15	0.13	0.15	<b>0.14</b>
	% CV	2%	9%	3%	<b>7%</b>
Control 2	Mean	2.0	2.0	2.1	<b>2.0</b>
	% CV	2%	2%	8%	<b>5%</b>

PAI-1		1	2	3	Inter
Control 1	Mean	0.059	0.071	0.055	<b>0.061</b>
	% CV	0%	5%	2%	<b>12%</b>
Control 2	Mean	2.4	2.5	2.6	<b>2.5</b>
	% CV	7%	3%	5%	<b>6%</b>

VCAM-1		1	2	3	Inter
Control 1	Mean	0.74	0.82	0.64	<b>0.73</b>
	% CV	1%	3%	1%	<b>10%</b>
Control 2	Mean	22	24	30	<b>25</b>
	% CV	4%	1%	5%	<b>13%</b>

d) Linearity:

<b>CRP</b>				
<b>ug/mL</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:2</b>	8.3	12	7.1	5.9
<b>1:4</b>	5.0	6.5	3.7	3.3
<b>1:8</b>	2.6	3.6	1.8	1.7
<b>1:16</b>	1.4	1.7	0.89	0.74
<b>2</b>	122%	111%	103%	113%
<b>4</b>	102%	110%	101%	101%
<b>8</b>	110%	92%	97%	89%

<b>MIP-1<math>\gamma</math></b>				
<b>ng/mL</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:2</b>	20	22	19	19
<b>1:4</b>	12	11	11	10
<b>1:8</b>	6.4	6.0	5.8	5.0
<b>1:16</b>	3.2	3.1	3.1	2.7
<b>2</b>	119%	103%	109%	105%
<b>4</b>	106%	106%	109%	100%
<b>8</b>	100%	103%	107%	108%

<b>MMP-9</b>				
<b>ng/mL</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:2</b>	97	178	13	8.3
<b>1:4</b>	58	99	7.5	4.3
<b>1:8</b>	33	53	4.1	2.4
<b>1:16</b>	20	29	2.6	1.4
<b>2</b>	120%	112%	118%	103%
<b>4</b>	115%	106%	109%	112%
<b>8</b>	117%	110%	126%	116%

<b>NGAL</b>				
<b>ng/mL</b>	<b>Serum 1</b>	<b>Serum 2</b>	<b>Plasma 1</b>	<b>Plasma 2</b>
<b>1:2</b>	74	127	90	88
<b>1:4</b>	43	69	57	49
<b>1:8</b>	20	35	28	24
<b>1:16</b>	9.4	19	14	12
<b>2</b>	117%	108%	125%	111%
<b>4</b>	95%	102%	99%	99%
<b>8</b>	92%	106%	97%	96%

PAI-1				
ng/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	7.3	21	3.8	2.9
1:4	4.1	11	2.2	1.5
1:8	2.3	5.1	1.3	0.80
1:16	1.2	2.7	0.67	0.50
2	113%	100%	115%	106%
4	113%	97%	116%	105%
8	103%	106%	106%	126%

VCAM-1				
ng/mL	Serum 1	Serum 2	Plasma 1	Plasma 2
1:2	1000	1710	742	724
1:4	641	1027	455	335
1:8	400	575	270	215
1:16	254	331	175	128
2	128%	120%	123%	93%
4	125%	112%	119%	128%
8	127%	115%	129%	119%

e) Freeze/thaw stability:

CRP					
ug/mL		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	9.2	19	7.0	6.9
	FT-1X	8.9	16	6.9	6.7
	FT-2X	9.1	15	7.0	6.5
	FT-3X	8.3	14	7.4	6.6
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	97%	83%	99%	98%
	FT-2X	100%	79%	100%	94%
	FT-3X	90%	73%	106%	96%

	<b>MIP-1<math>\gamma</math></b>				
	<b>ng/mL</b>	Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	18	17	17	16
	FT-1X	19	16	16	16
	FT-2X	20	17	17	16
	FT-3X	16	20	17	15
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	110%	92%	95%	100%
	FT-2X	111%	96%	102%	103%
	FT-3X	92%	117%	103%	98%

	<b>MMP-9</b>				
	<b>ng/mL</b>	Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	79	134	12	8.0
	FT-1X	81	134	12	8.0
	FT-2X	85	130	11	7.6
	FT-3X	70	173	12	7.6
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	102%	100%	100%	100%
	FT-2X	107%	97%	95%	94%
	FT-3X	88%	129%	101%	94%

	<b>NGAL</b>				
	<b>ng/mL</b>	Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	77	106	87	83
	FT-1X	80	106	92	83
	FT-2X	85	109	90	84
	FT-3X	71	134	92	84
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	105%	100%	105%	100%
	FT-2X	111%	103%	104%	100%
	FT-3X	93%	126%	106%	101%

		PAI-1			
		ng/mL			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	6.8	17	3.5	2.6
	FT-1X	7.2	17	3.5	2.6
	FT-2X	7.7	17	3.4	2.6
	FT-3X	6.3	22	3.4	2.3
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	105%	99%	102%	100%
	FT-2X	112%	98%	98%	100%
	FT-3X	92%	126%	100%	89%

		VCAM-1			
		ng/mL			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	FT-0X	691	899	428	470
	FT-1X	780	865	442	478
	FT-2X	804	888	430	463
	FT-3X	663	1100	427	451
% Control	FT-0X	100%	100%	100%	100%
	FT-1X	113%	96%	103%	102%
	FT-2X	116%	99%	100%	99%
	FT-3X	96%	122%	100%	96%

f) Bench Top Stability:

		CRP			
		ug/mL			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	7.7	12	6.8	6.6
	2hr RT	8.4	12	6.6	6.5
	2hr 4C	8.1	12	6.9	6.7
	4hr 4C	7.5	12	7.1	6.4
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	109%	98%	98%	98%
	2hr 4C	106%	95%	101%	100%
	4hr 4C	98%	95%	105%	97%

		<b>MIP-1<math>\gamma</math></b>			
		<b>ng/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	18	21	20	19
	2hr RT	18	19	20	19
	2hr 4C	19	21	21	20
	4hr 4C	18	22	22	21
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	101%	92%	103%	99%
	2hr 4C	103%	103%	106%	106%
	4hr 4C	102%	105%	114%	110%

		<b>MMP-9</b>			
		<b>ng/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	82	174	13	7.7
	2hr RT	89	169	12	7.3
	2hr 4C	83	177	14	8.3
	4hr 4C	85	180	14	8.7
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	108%	97%	89%	95%
	2hr 4C	101%	102%	106%	108%
	4hr 4C	103%	104%	105%	113%

		<b>NGAL</b>			
		<b>ng/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	64	121	89	85
	2hr RT	67	123	89	88
	2hr 4C	66	120	91	91
	4hr 4C	63	119	96	89
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	105%	102%	100%	103%
	2hr 4C	103%	100%	102%	108%
	4hr 4C	99%	99%	108%	105%

		<b>PAI-1</b>			
		<b>ng/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	6.0	20	3.7	2.8
	2hr RT	6.4	20	4.5	3.2
	2hr 4C	6.1	20	4.1	3.0
	4hr 4C	6.4	21	4.4	3.3
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	106%	101%	122%	118%
	2hr 4C	101%	103%	111%	110%
	4hr 4C	106%	107%	119%	119%

		<b>VCAM-1</b>			
		<b>ng/mL</b>			
		Serum 1	Serum 2	Plasma 1	Plasma 2
Value	CTL-0 Hr	1075	1630	743	801
	2hr RT	1140	1650	723	822
	2hr 4C	1080	1725	756	864
	4hr 4C	1195	1725	747	881
% Control	CTL-0 Hr	100%	100%	100%	100%
	2hr RT	106%	101%	97%	103%
	2hr 4C	100%	106%	102%	108%
	4hr 4C	111%	106%	101%	110%

## **Conclusions**

All of the assays in Rodent MAP 5.0 mouse meet acceptance. IL-13 was not stable at the 2hr bench-top time point, therefore all samples will be kept on ice prior to the assay.