



# FERRET CYTOKINE PANEL 2

## CERTIFICATE OF ANALYSIS

(Part ID: F107-K; Lot ID: K22803)

### Use

For the detection of 13 ferret cytokines/chemokines (**IFN $\alpha$** , **IFN $\gamma$** , **IL-12p40**, **IL-12p70**, **IL-17**, **IL-2**, **IL-4**, **IL-6**, **IL-8**, **IP-10**, **MCP-1**, **MIP-1 $\beta$** , & **TNF $\alpha$** ) in serum, plasma, tissue homogenates, and bronchial lavage.

### Kit Components

Note:

Kit Components			
Kit Component	Part Number	Lot Number	Number Supplied
Ferret Cytokine Panel 2 Beads	F107-B	K22760	1
Ferret Cytokine Panel 2 Detection	F107-D	K22761	1
Ferret Cytokine Panel 2 Standard	F107-S	K22762	1
Ferret Cytokine Panel 2 Control 1	F107-C1	K22763	1
Ferret Cytokine Panel 2 Control 2	F107-C2	K22767	1
Ferret Standard Curve Diluent A	F100-SCD	K22643	1
Ferret Blocker A	F100-BL	K22554	1
Streptavidin-PE	SAPE4-250	K22607	1
Sample Diluent	B113-15	K22556	1
Assay Buffer 10X	B110-25	K22557	1
Clear Bottom Black Assay Plate	NA	NA	1
Plate Sealer	NA	NA	3

### Storage and Stability

Store kit at 2°C - 8°C.

**Expiration Date: 1 year from date of receipt;** Do not use beyond the expiration date



**Standard Concentrations:**

Standard Level	IFN $\alpha$ [pg/mL]	IFN $\gamma$ [pg/mL]	IL-12p40 [pg/mL]	IL-12p70 [pg/mL]	IL-17 [pg/mL]	IL-2 [pg/mL]	IL-4 [pg/mL]
S8	10000	22400	3700	10300	5400	2300	12000
S7	2857	6400	1057	2943	1543	657	3429
S6	816	1829	302	841	441	188	980
S5	233	522	86	240	126	54	280
S4	67	149	25	69	36	15	80
S3	19	43	7.0	20	10	4.4	23
S2	5.4	12	2.0	5.6	2.9	1.3	6.5
S1	1.6	3.5	0.58	1.6	0.84	0.36	1.9

  

Standard Level	IL-6 [pg/mL]	IL-8 [pg/mL]	IP-10 [pg/mL]	MCP-1 [pg/mL]	MIP-1 $\beta$ [pg/mL]	TNF $\alpha$ [pg/mL]
S8	10000	13500	16000	7900	4000	11600
S7	2857	3857	4571	2257	1143	3314
S6	816	1102	1306	645	327	947
S5	233	315	373	184	93	271
S4	67	90	107	53	27	77
S3	19	26	30	15	7.6	22
S2	5.4	7.3	8.7	4.3	2.2	6.3
S1	1.6	2.1	2.5	1.2	0.62	1.8

**Control Ranges:**

Control	Range	IFN $\alpha$ [pg/mL]	IFN $\gamma$ [pg/mL]	IL-12p40 [pg/mL]	IL-12p70 [pg/mL]	IL-17 [pg/mL]	IL-2 [pg/mL]	IL-4 [pg/mL]
1	Low	63	72	12	80	28	14	65
	High	190	215	36	239	85	42	196
2	Low	393	487	146	506	224	91	423
	High	1179	1462	439	1518	673	272	1270

  

Control	Range	IL-6 [pg/mL]	IL-8 [pg/mL]	IP-10 [pg/mL]	MCP-1 [pg/mL]	MIP-1 $\beta$ [pg/mL]	TNF $\alpha$ [pg/mL]
1	Low	20	123	77	102	20	157
	High	60	369	231	305	61	470
2	Low	125	320	930	373	129	1066
	High	376	959	2790	1120	388	3198

**LDD:**

LDD	IFN $\alpha$ [pg/mL]	IFN $\gamma$ [pg/mL]	IL-12p40 [pg/mL]	IL-12p70 [pg/mL]	IL-17 [pg/mL]	IL-2 [pg/mL]	IL-4 [pg/mL]
With Dilution	17	11	5.0	5.4	8.5	1.1	8.2
Without Dilution	5.8	3.5	1.7	1.8	2.8	0.36	2.7

  

LDD	IL-6 [pg/mL]	IL-8 [pg/mL]	IP-10 [pg/mL]	MCP-1 [pg/mL]	MIP-1 $\beta$ [pg/mL]	TNF $\alpha$ [pg/mL]
With Dilution	6.2	15	7.5	3.5	5.7	7.3
Without Dilution	2.1	5.0	2.5	1.2	1.9	2.4



**Reference MFI Values:**

Standard and control MFI values generated on a Luminex 200 instrument using the standard (low) PMT setting. Data represents the average MFI of multiple runs at Ampersand Biosciences.

*Representative data, may vary by instrument*

MFI	IFN $\alpha$ [pg/mL]	IFN $\gamma$ [pg/mL]	IL-12p40 [pg/mL]	IL-12p70 [pg/mL]	IL-17 [pg/mL]	IL-2 [pg/mL]	IL-4 [pg/mL]
S8	17417	10021	11163	10917	12875	13999	25118
S7	8942	5179	6361	4809	9946	6727	17298
S6	2249	1818	1870	1434	2832	2438	6312
S5	460	548	477	392	245	704	1054
S4	166	171	173	125	71	202	156
S3	102	65	97	49	39	72	49
S2	88	37	82	31	31	39	33
S1	82	32	81	24	30	30	28
Control 1	252	162	163	254	95	354	296
Control 2	2101	1006	1791	1752	2798	2357	5352

  

MFI	IL-6 [pg/mL]	IL-8 [pg/mL]	IP-10 [pg/mL]	MCP-1 [pg/mL]	MIP-1 $\beta$ [pg/mL]	TNF $\alpha$ [pg/mL]
S8	13772	13886	19172	20690	14935	22444
S7	6259	7057	11281	12072	9752	9208
S6	2091	1930	5611	4053	3541	2447
S5	630	403	2014	1091	1217	495
S4	203	118	488	237	315	135
S3	86	58	134	66	82	54
S2	55	43	70	33	64	35
S1	49	39	55	26	64	30
Control 1	135	302	750	1193	481	581
Control 2	670	958	7126	4841	3205	6049