



FERRET CYTOKINE PANEL 2

CERTIFICATE OF ANALYSIS

(Part ID: F107-K; Lot ID: K22988)

Use

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

Kit Components

Kit Components			
Kit Component	Part Number	Lot Number	Number Supplied
Ferret Cytokine Panel 2 Beads	F107-B	K22989	1
Ferret Cytokine Panel 2 Detection	F107-D	K22990	1
Ferret Cytokine Panel 2 Standard	F107-S	K22991	1
Ferret Cytokine Panel 2 Control 1	F107-C1	K22806	1
Ferret Cytokine Panel 2 Control 2	F107-C2	K22818	1
Ferret Standard Curve Diluent A	F100-SCD	K22992	1
Ferret Blocker A	F100-BL	K22993	1
Streptavidin-PE	SAPE4-250	K22994	1
Sample Diluent	B113-15	K22995	1
Assay Buffer 10X	B100-25	K22996	1
Clear Bottom Black Assay Plate	NA	NA	1
Plate Cover w/ Sealer	NA	NA	1

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 α [pg/mL]	IFN γ [pg/mL]	IL-12p40 [pg/mL]	IL-12p70 [pg/mL]	IL-17 [pg/mL]	IL-2 [pg/mL]	IL-4 [pg/mL]
S8	10000	24000	4200	9400	3700	3400	15000
S7	2857	6857	1200	2686	1057	971	4286
S6	816	1959	343	767	302	278	1224
S5	233	560	98	219	86	79	350
S4	67	160	28	63	25	23	100
S3	19	46	8.0	18	7.0	6.5	29
S2	5.4	13	2.3	5.1	2.0	1.8	8.2
S1	1.6	3.7	0.65	1.5	0.58	0.53	2.3

Standard Level	IL-6 [pg/mL]	IL-8 [pg/mL]	IP-10 [pg/mL]	MCP-1 [pg/mL]	MIP-1 β [pg/mL]	TNF α [pg/mL]
S8	12000	25000	6000	9500	5000	11600
S7	3429	7143	1714	2714	1429	3314
S6	980	2041	490	776	408	947
S5	280	583	140	222	117	271
S4	80	167	40	63	33	77
S3	23	48	11	18	10	22
S2	6.5	14	3.3	5.2	2.7	6.3
S1	1.9	3.9	0.93	1.5	0.78	1.8

Control Ranges:

Control	Range	IFN α [pg/mL]	IFN γ [pg/mL]	IL-12p40 [pg/mL]	IL-12p70 [pg/mL]	IL-17 [pg/mL]	IL-2 [pg/mL]	IL-4 [pg/mL]
1	Low	45	42	11	64	14	12	55
	High	134	125	34	191	41	36	165
2	Low	364	320	143	483	110	88	425
	High	1092	960	430	1450	329	265	1274

Control	Range	IL-6 [pg/mL]	IL-8 [pg/mL]	IP-10 [pg/mL]	MCP-1 [pg/mL]	MIP-1 β [pg/mL]	TNF α [pg/mL]
1	Low	16	113	94	58	25	148
	High	47	339	283	175	75	445
2	Low	106	307	1015	253	169	1416
	High	319	920	3044	759	506	4248

LDD:

LDD	IFN α [pg/mL]	IFN γ [pg/mL]	IL-12p40 [pg/mL]	IL-12p70 [pg/mL]	IL-17 [pg/mL]	IL-2 [pg/mL]	IL-4 [pg/mL]
With Dilution	5.8	11	11	6.4	28	2.9	18
Without Dilution	1.9	3.7	3.5	2.1	9.3	1.0	6.2

LDD	IL-6 [pg/mL]	IL-8 [pg/mL]	IP-10 [pg/mL]	MCP-1 [pg/mL]	MIP-1 β [pg/mL]	TNF α [pg/mL]
With Dilution	7.5	19	2.8	6.8	7.7	5.4
Without Dilution	2.5	6.2	0.93	2.3	2.6	1.8



LLOQ:

LLOQ	IFN α [pg/mL]	IFN γ [pg/mL]	IL-12p40 [pg/mL]	IL-12p70 [pg/mL]	IL-17 [pg/mL]	IL-2 [pg/mL]	IL-4 [pg/mL]
With Dilution	19	22	11	15	32	4.2	28
Without Dilution	6.4	7.4	3.5	4.9	11	1.4	9.2
LLOQ	IL-6 [pg/mL]	IL-8 [pg/mL]	IP-10 [pg/mL]	MCP-1 [pg/mL]	MIP-1 β [pg/mL]	TNF α [pg/mL]	
With Dilution	17	35	13	15	16	14	
Without Dilution	5.7	12	4.3	5.1	5.3	4.7	

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 α	IFN γ	IL-12p40	IL-12p70	IL-17	IL-2	IL-4
S8	16819	13302	9726	11123	7510	9932	21266
S7	9041	6807	5512	4889	5880	5549	14983
S6	2961	2490	1719	1545	2149	2445	6123
S5	647	770	457	456	157	845	1272
S4	170	252	160	149	48	278	194
S3	63	82	79	67	33	101	50
S2	36	31	56	41	28	51	26
S1	30	20	46	34	27	39	22
Control 1	214	133	134	273	49	289	218
Control 2	2502	929	1367	1959	1026	1734	4122
MFI	IL-6	IL-8	IP-10	MCP-1	MIP-1 β	TNF α	
S8	13964	22632	14870	8813	9591	13444	
S7	7295	12239	8113	7830	5959	7137	
S6	2896	3824	3150	3758	2131	2204	
S5	935	712	879	1149	787	505	
S4	298	149	271	296	263	131	
S3	108	49	128	80	83	49	
S2	56	27	92	33	62	27	
S1	43	23	80	25	58	22	
Control 1	135	204	1159	577	347	566	
Control 2	733	771	8979	2641	1955	6370	