6459 State Route 30 Lake Clear, NY 12945 Phone: 518.891.0204

FERRET CYTOKINE PANEL 2

CERTIFICATE OF ANALYSIS

(Part ID: F107-K; Lot ID: K23303)

Use

For the detection of 13 ferret cytokines/chemokines **(IFNα, IFNγ, IL-12p40, IL-12p70, IL-17, IL-2, IL-4, IL-6, IL-8, IP-10, MCP-1, MIP-1β, & TNFα**) 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	K23304	1
Ferret Cytokine Panel 2 Detection	F107-D	K23305	1
Ferret Cytokine Panel 2 Standard	F107-S	K23306	2
Ferret Cytokine Panel 2 Control 1	F107-C1	K23307	1
Ferret Cytokine Panel 2 Control 2	F107-C2	K23361	1
Ferret Standard Curve Diluent A	F100-SCD	K23309	1
Ferret Blocker A	F100-BL	K23310	1
Streptavidin-PE	SAPE4-500	K23311	1
Sample Diluent	B113-15	K23312	1
Assay Buffer 10X	B100-30	K23313	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

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Standard Concentrations:

Standard Level	IFNα [pg/mL]	IFNγ [pg/mL]	IL-12p40 [pg/mL]	IL-12p70 [pg/mL]	IL-17 [pg/mL]	IL-2 [pg/mL]	IL-4 [pg/mL]
S8	7000	37780	6400	4700	7000	3400	12500
S7	2000	10794	1829	1343	2000	971	3571
S6	571	3084	522	384	571	278	1020
S5	163	881	149	110	163	79	292
S4	47	252	43	31	47	23	83
S3	13	72	12	8.9	13	6.5	24
S2	3.8	21	3.5	2.6	3.8	1.8	6.8
S1	1.1	5.9	1.0	0.73	1.1	0.53	1.9

Standard Level	IL-6 [pg/mL]	IL-8 [pg/mL]	IP-10 [pg/mL]	MCP-1 [pg/mL]	MIP-1β [pg/mL]	TNFα [pg/mL]
S8	24300	18000	12000	8000	7080	11600
S7	6943	5143	3429	2286	2023	3314
S6	1984	1469	980	653	578	947
S5	567	420	280	187	165	271
S4	162	120	80	53	47	77
S3	46	34	23	15	13	22
S2	13	10	6.5	4.4	3.9	6.3
S1	3.8	2.8	1.9	1.2	1.1	1.8

Control Ranges:

Control	Range	IFNα [pg/mL]	IFNγ [pg/mL]	IL-12p40 [pg/mL]	IL-12p70 [pg/mL]	IL-17 [pg/mL]	IL-2 [pg/mL]	IL-4 [pg/mL]
1	Low	46	111	48	41	36	16	69
	High	137	334	144	122	108	47	206
2	Low	469	825	409	390	453	141	710
	High	1407	2476	1228	1169	1358	423	2130

Control	Range	IL-6 [pg/mL]	IL-8 [pg/mL]	IP-10 [pg/mL]	MCP-1 [pg/mL]	MIP-1β [pg/mL]	TNFα [pg/mL]
1	Low	81	109	36	65	36	92
	High	243	327	108	195	107	276
2	Low	639	713	362	505	263	859
	High	1918	2138	1085	1514	788	2578

LDD:

LDD	IFNα [pg/mL]	IFNγ [pg/mL]	IL-12p40 [pg/mL]	IL-12p70 [pg/mL]	IL-17 [pg/mL]	IL-2 [pg/mL]	IL-4 [pg/mL]
With Dilution	16	19	10	4.7	9.8	1.6	33
Without Dilution	5.3	6.5	3.5	1.6	3.3	0.53	11

LDD	IL-6 [pg/mL]	IL-8 [pg/mL]	IP-10 [pg/mL]	MCP-1 [pg/mL]	MIP-1β [pg/mL]	TNFα [pg/mL]
With Dilution	11	16	5.6	5.8	9.6	5.4
Without Dilution	3.5	5.5	1.9	1.9	3.2	1.8

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LLOQ:

LLOQ	IFNα [pg/mL]	IFNɣ [pg/mL]	IL-12p40 [pg/mL]	IL-12p70 [pg/mL]	IL-17 [pg/mL]	IL-2 [pg/mL]	IL-4 [pg/mL]
With Dilution	22	19	13	9.0	36	2.5	33
Without Dilution	7.4	6.5	4.3	3.0	12	0.84	11

LLOQ	IL-6 [pg/mL]	IL-8 [pg/mL]	IP-10 [pg/mL]	MCP-1 [pg/mL]	MIP-1β [pg/mL]	TNFα [pg/mL]
With Dilution	19	26	7.9	12	11	20
Without Dilution	6.3	8.8	2.6	3.8	3.5	6.7

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	IFNα	IFNɣ	IL-12p40	IL-12p70	IL-17	IL-2	IL-4
S8	19019	13455	14169	11011	9451	19863	21285
S7	8506	6389	6766	3823	7589	10260	14051
S6	1870	2274	1676	1087	5066	3274	4697
S5	292	681	338	301	506	666	651
S4	81	206	107	100	66	149	84
S3	44	69	55	47	32	53	25
S2	35	31	42	32	23	27	19
S1	34	20	37	27	21	21	17
Control 1	146	181	211	226	118	215	175
Control 2	3662	1270	2926	2252	7033	3288	6717

MFI	IL-6	IL-8	IP-10	MCP-1	MIP-1β	TNFα
S8	16500	22902	22936	15164	10272	18348
S7	8334	12890	16444	10016	5706	9079
S6	3120	3562	7241	3457	1943	2443
S5	887	611	2126	891	666	412
S4	273	109	435	186	240	90
S3	96	37	96	47	65	33
S2	46	20	42	24	29	20
S1	32	17	29	19	27	17
Control 1	265	234	369	565	329	248
Control 2	2037	3467	5774	5238	1904	4914