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: K23471)

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	K23472	1
Ferret Cytokine Panel 2 Detection	F107-D	K23473	1
Ferret Cytokine Panel 2 Standard	F107-S	K23474	2
Ferret Cytokine Panel 2 Control 1	F107-C1	K23475	1
Ferret Cytokine Panel 2 Control 2	F107-C2	K23476	1
Ferret Standard Curve Diluent A	F100-SCD	K23477	1
Ferret Blocker A	F100-BL	K23478	1
Streptavidin-PE	SAPE4-500	K23479	1
Sample Diluent	B113-15	K23480	1
Assay Buffer 10X	B100-30	K23481	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]	IFNɣ [pg/mL]	IL-12p40 [pg/mL]	IL-12p70 [pg/mL]	IL-17 [pg/mL]	IL-2 [pg/mL]	IL-4 [pg/mL]
S8	3800	28690	6400	3280	4900	2600	7950
S7	1086	8197	1829	937	1400	743	2271
S6	310	2342	522	268	400	212	649
S5	89	669	149	77	114	61	185
S4	25	191	43	22	33	17	53
S3	7.2	55	12	6.2	9.3	5.0	15
S2	2.1	16	3.5	1.8	2.7	1.4	4.3
S1	0.59	4.5	1.0	0.51	0.76	0.40	1.2

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	13600	18000	6400	5800	7080	6940
S7	3886	5143	1829	1657	2023	1983
S6	1110	1469	522	473	578	567
S5	317	420	149	135	165	162
S4	91	120	43	39	47	46
S3	26	34	12	11	13	13
S2	7.4	9.8	3.5	3.2	3.9	3.8
S1	2.1	2.8	1.0	0.90	1.1	1.1

Control Ranges:

Control	Range	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]
1	Low	20	93	29	23	26	14	62
	High	60	279	87	69	78	41	187
2	Low	199	922	241	262	292	123	601
	High	597	2765	723	785	876	369	1804

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	52	110	28	84	36	64
	High	156	330	85	253	109	193
2	Low	498	768	237	576	358	720
	High	1495	2304	712	1729	1073	2161

LDD:

LDD	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	14	16	11	8.0	10	2.0	26
Without Dilution	4.6	5.3	3.5	2.7	3.5	0.65	8.5

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	10	24	6.6	13	14	27
Without Dilution	3.5	7.9	2.2	4.2	4.8	9.0

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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	18	22	18	17	13	2.6	29
Without Dilution	6.1	7.3	6.1	5.6	4.3	0.86	9.8
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	29	26	6.7	20	13	34	
Without Dilution	9.6	8.6	2.2	6.8	4.3	11	

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	15071	11220	9888	8135	9435	20200	21280
S7	6845	5425	5584	2366	7624	9127	9738
S6	1473	1950	1606	643	5259	2974	2334
S5	253	603	338	186	633	666	341
S4	71	181	97	68	96	169	56
S3	34	70	41	38	46	63	23
S2	26	32	27	27	34	33	18
S1	24	20	23	23	30	27	17
Control 1	103	177	123	121	166	272	178
Control 2	2266	1630	1578	1343	6834	3381	5292

MFI	IL-6	IL-8	IP-10	MCP-1	MIP-1β	TNFα
S8	13752	24168	20759	16546	8433	16313
S7	6097	12714	13101	7468	5808	5176
S6	2136	3750	5220	1957	2149	1054
S5	616	706	1390	443	770	201
S4	195	133	288	99	242	64
S3	79	41	80	36	48	35
S2	45	22	39	26	17	25
S1	35	17	30	22	14	23
Control 1	217	284	414	537	354	164
Control 2	1900	3896	4879	5350	2687	3599