



CERTIFICATE OF ANALYSIS

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COA- 05216

Product Description: Proinflammatory Panel 1 (mouse) Kit V-PLEX™ and V-PLEX Plus
Kit Catalog Numbers: K15048D-1, K15048D-2, K15048D-4, K15048G-1, K15048G-2, K15048G-4
Kit Lot Number: K0080284
Expiration Date: 31 MAY 2016

Acceptance Data:

Metric		Specifications	Assay				
			ms IFN- γ	ms IL-1 β	ms IL-2	ms IL-4	ms IL-5
% Recovery Concentration	Calibrators	80% - 120%	Pass	Pass	Pass	Pass	Pass
	Controls	75% - 125%	Pass	Pass	Pass	Pass	Pass
	ULOQ	75% - 125%	Pass	Pass	Pass	Pass	Pass
	LLOQ	75% - 125%	Pass	Pass	Pass	Pass	Pass
% Recovery CV	Calibrators	< 20%	Pass	Pass	Pass	Pass	Pass
	Controls	< 25%	Pass	Pass	Pass	Pass	Pass
	ULOQ	< 25%	Pass	Pass	Pass	Pass	Pass
	LLOQ	< 25%	Pass	Pass	Pass	Pass	Pass
Non-specific binding		< 1%	Pass	Pass	Pass	Pass	Pass

Metric		Specifications	Assay				
			ms IL-6	ms KC/GRO	ms IL-10	ms IL-12p70	ms TNF- α
% Recovery Concentration	Calibrators	80% - 120%	Pass	Pass	Pass	Pass	Pass
	Controls	75% - 125%	Pass	Pass	Pass	Pass	Pass
	ULOQ	75% - 125%	Pass	Pass	Pass	Pass	Pass
	LLOQ	75% - 125%	Pass	Pass	Pass	Pass	Pass
% Recovery CV	Calibrators	< 20%	Pass	Pass	Pass	Pass	Pass
	Controls	< 25%	Pass	Pass	Pass	Pass	Pass
	ULOQ	< 25%	Pass	Pass	Pass	Pass	Pass
	LLOQ	< 25%	Pass	Pass	Pass	Pass	Pass
Non-specific binding		< 1%	Pass	Pass	Pass	Pass	Pass

Concentration of Materials Tested:

Units = pg/mL	Assay									
	ms IFN- γ	ms IL-1 β	ms IL-2	ms IL-4	ms IL-5	ms IL-6	ms KC/GRO	ms IL-10	ms IL-12p70	ms TNF- α
Reconstituted Calibrator	820	1500	2220	1520	861	3620	1790	2890	27 300	542
Reconstituted Control 1 (A00C0289)	479	623	933	505	381	1740	902	1140	13 100	172
Reconstituted Control 2 (A00C0290)	26.8	48.7	67.8	89.3	46.0	271	115	283	3060	32.5
Reconstituted Control 3 (A00C0291)	3.05	1.57	7.43	24.6	7.83	66.0	15.3	115	1010	5.19
ULOQ	711	1300	1930	1320	747	3140	1550	2510	23 700	470
LLOQ	0.380	0.696	1.03	0.705	0.399	7.61	0.830	6.08	46.3	1.14



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Standard Curve Data from Kit QC:

ms IFN- γ		
Conc., (pg/mL)	Average Signal	%CV
820	1 278 613	2.2
205	396 278	3.3
51.3	104 882	3.0
12.8	26 946	2.9
3.20	6599	2.3
0.801	1856	4.0
0.200	595	5.6
0	133	21.3

ms IL-1 β		
Conc., (pg/mL)	Average Signal	%CV
1500	707 214	2.2
375	185 295	3.7
93.8	48 078	3.7
23.4	11 986	2.6
5.86	3208	3.6
1.46	938	3.9
0.366	365	5.4
0	150	13.8

ms IL-2		
Conc., (pg/mL)	Average Signal	%CV
2220	701 327	5.8
555	199 345	3.2
139	51 862	3.7
34.7	12 749	3.6
8.67	3673	3.7
2.17	1041	5.7
0.542	409	6.1
0	165	14.7

ms IL-4		
Conc., (pg/mL)	Average Signal	%CV
1520	725 186	3.1
380	214 865	3.0
95.0	57 932	2.9
23.8	15 198	3.2
5.94	3912	4.5
1.48	1268	3.7
0.371	552	6.1
0	286	11.4

ms IL5		
Conc., (pg/mL)	Average Signal	%CV
861	1 171 207	2.8
215	279 042	3.0
53.8	67 549	2.8
13.5	16 660	4.4
3.36	4353	2.7
0.841	1245	2.9
0.210	446	4.6
0	161	13.1

ms IL-6		
Conc., (pg/mL)	Average Signal	%CV
3620	598 491	2.9
905	130 764	2.7
226	30 454	3.0
56.6	7325	3.7
14.1	2219	2.4
3.54	715	3.5
0.884	339	7.4
0	199	12.6

ms KC/GRO		
Conc., (pg/mL)	Average Signal	%CV
1790	1 247 578	4.3
448	264 007	3.0
112	55 083	3.0
28.0	12 456	3.4
6.99	3368	3.0
1.75	997	4.7
0.437	424	5.1
0	201	9.9

ms IL-10		
Conc., (pg/mL)	Average Signal	%CV
2890	493 976	5.1
723	115 912	6.9
181	28 457	5.9
45.2	7425	6.0
11.3	2260	7.1
2.82	1004	7.1
0.706	736	11.7
0	638	13.7

ms IL-12p70		
Conc., (pg/mL)	Average Signal	%CV
27 300	588 849	3.9
6825	106 698	3.0
1706	18 240	3.9
427	3787	4.4
107	1103	4.0
26.7	410	6.4
6.67	247	12.4
0	177	13.2

ms TNF- α		
Conc., (pg/mL)	Average Signal	%CV
542	375 663	2.2
136	80 797	3.2
33.9	19 070	2.9
8.47	4669	4.1
2.12	1464	3.3
0.529	570	5.4
0.132	347	8.0
0	263	10.2



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Proinflammatory Panel 1 (mouse) Kit V-PLEX Components			
Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (mouse) Plate	Z0045436	2-8°C	28 FEB 2017
Anti-ms IFN- γ Antibody	D0080392	2-8°C	31 DEC 2016
Anti-ms IL-1 β Antibody	D0080393	2-8°C	31 DEC 2016
Anti-ms IL-2 Antibody	D0080394	2-8°C	31 DEC 2016
Anti-ms IL-4 Antibody	D0080395	2-8°C	30 NOV 2016
Anti-ms IL-5 Antibody	D0080201	2-8°C	31 MAY 2016
Anti-ms IL-6 Antibody	D0080437	2-8°C	31 JAN 2017
Anti-ms KC/GRO Antibody	D0080398	2-8°C	30 NOV 2016
Anti-ms IL-10 Antibody	D0080399	2-8°C	31 DEC 2016
Anti-ms IL-12p70 Antibody	D0080400	2-8°C	31 DEC 2016
Anti-ms TNF- α Antibody	D0080401	2-8°C	30 NOV 2016
Proinflammatory Panel 1 (mouse) Calibrator Blend	A0080048	2-8°C	31 JAN 2020
Diluent 41	M0410006	$\leq -10^{\circ}\text{C}$	31 OCT 2016
Diluent 45	M0450006	$\leq -10^{\circ}\text{C}$	28 FEB 2017
MSD Read Buffer T (4X)	Not Kit Specific	Room Temperature	N/A
Additional Components Included in V-PLEX Plus			
Wash Buffer (20X), 100 mL	Not Kit Specific	Room Temperature	N/A
Plate Seals	Not Kit Specific	Room Temperature	N/A
Proinflammatory Panel 1 (mouse) Control 1	Not Kit Specific; See Separate Control Pack COA		
Proinflammatory Panel 1 (mouse) Control 2			
Proinflammatory Panel 1 (mouse) Control 3			

Statement: The above kit lot was tested using MSD procedures and it conforms to MSD's specifications. The above product is intended for Research Use Only. Not for use in Diagnostic Procedures.

	Name	Function	Signature	Date
Review/Approval	Dana Short	Quality Control		12 FEB 2015