



CERTIFICATE OF ANALYSIS

Page 1 of 3

COA-04582

Product Description: Proinflammatory Panel 1 (human) Kit V-PLEX™ and V-PLEX Plus
Kit Catalog Numbers: K15049D-1, K15049D-2, K15049D-4, K15049G-1, K15049G-2, K15049G-4
Kit Lot Number: K0080193
Expiration Date: 31 MAR 2016

Acceptance Data:

			Assay				
Metric		Specifications	hu IFN- γ	hu IL-1 β	hu IL-2	hu IL-4	hu IL-6
% Recovery Concentration	Calibrators	80% - 120%	Pass	Pass	Pass	Pass	Pass
	Controls	80% - 120%	Pass	Pass	Pass	Pass	Pass
	ULOQ	80% - 120%	Pass	Pass	Pass	Pass	Pass
	LLOQ	80% - 120%	Pass	Pass	Pass	Pass	Pass
% Recovery CV	Calibrators	< 20%	Pass	Pass	Pass	Pass	Pass
	Controls	< 20%	Pass	Pass	Pass	Pass	Pass
	ULOQ	< 20%	Pass	Pass	Pass	Pass	Pass
	LLOQ	< 20%	Pass	Pass	Pass	Pass	Pass
Non-specific binding		< 1%	Pass	Pass	Pass	Pass	Pass

			Assay				
Metric		Specifications	hu IL-8	hu IL-10	hu IL-12p70	hu IL-13	hu TNF- α
% Recovery Concentration	Calibrators	80% - 120%	Pass	Pass	Pass	Pass	Pass
	Controls	80% - 120%	Pass	Pass	Pass	Pass	Pass
	ULOQ	80% - 120%	Pass	Pass	Pass	Pass	Pass
	LLOQ	80% - 120%	Pass	Pass	Pass	Pass	Pass
% Recovery CV	Calibrators	< 20%	Pass	Pass	Pass	Pass	Pass
	Controls	< 20%	Pass	Pass	Pass	Pass	Pass
	ULOQ	< 20%	Pass	Pass	Pass	Pass	Pass
	LLOQ	< 20%	Pass	Pass	Pass	Pass	Pass
Non-specific binding		< 1%	Pass	Pass	Pass	Pass	Pass

Concentration of Materials Tested:

Units = pg/mL	Assay									
	hu IFN- γ	hu IL-1 β	hu IL-2	hu IL-4	hu IL-6	hu IL-8	hu IL-10	hu IL-12p70	hu IL-13	hu TNF- α
Reconstituted Calibrator	1410	510	1470	216	769	507	324	413	530	316
Reconstituted Control 1 (A00C0213)	426	146	280	64.1	235	155	99.5	141	157	69.5
Reconstituted Control 2 (A00C0214)	115	39.4	78.2	17.6	63.1	40.7	26.6	37.2	35.7	17.9
Reconstituted Control 3 (A00C0215)	25.1	9.46	23.0	4.54	15.2	10.5	6.61	11.4	10.0	5.20
ULOQ	1110	400	1150	170	604	398	254	324	416	248
LLOQ	2.90	0.309	0.890	0.444	0.466	0.307	0.196	1.22	1.57	0.191



CERTIFICATE OF ANALYSIS

COA-04582

Standard Curve Data from Kit QC:

hu IFN- γ		
Conc., (pg/mL)	Average Signal	%CV
1410	274 950	2.3
353	74 158	2.0
88.1	19 122	3.1
22.0	4991	2.7
5.51	1512	2.7
1.38	615	3.2
0.344	377	6.1
0	289	8.1

hu IL-1 β		
Conc., (pg/mL)	Average Signal	%CV
510	1 626 571	2.6
128	397 296	2.3
31.9	98 407	2.7
7.97	24 885	2.4
1.99	6966	4.2
0.498	2130	3.5
0.125	903	6.3
0	448	6.1

hu IL-2		
Conc., (pg/mL)	Average Signal	%CV
1470	1 006 132	2.5
368	274 761	3.8
91.9	72 510	4.6
23.0	18 367	5.1
5.74	5339	4.1
1.44	1544	4.1
0.359	630	4.7
0	271	7.6

hu IL-4		
Conc., (pg/mL)	Average Signal	%CV
216	531 644	6.3
54.0	157 299	4.9
13.5	41 274	8.5
3.38	10 646	7.5
0.844	2867	9.8
0.211	898	9.3
0.053	360	8.6
0	166	19.7

hu IL-6		
Conc., (pg/mL)	Average Signal	%CV
769	1 298 621	3.4
192	280 059	2.7
48.1	57 766	3.7
12.0	13 234	3.1
3.00	3515	3.9
0.751	1073	4.5
0.188	440	9.4
0	187	14.9

hu IL-8		
Conc., (pg/mL)	Average Signal	%CV
507	632 535	2.6
127	152 217	2.3
31.7	37 535	1.8
7.92	9137	9.7
1.98	2715	3.5
0.495	844	5.4
0.124	360	5.5
0	178	10.2

hu IL-10		
Conc., (pg/mL)	Average Signal	%CV
324	577 129	2.6
81.0	162 379	2.2
20.3	43 169	2.4
5.06	10 973	3.0
1.27	3162	4.2
0.316	996	3.6
0.079	456	4.9
0	248	11.4

hu IL-12p70		
Conc., (pg/mL)	Average Signal	%CV
413	208 349	7.5
103	60 245	5.2
25.8	16 073	7.3
6.45	4161	6.5
1.61	1283	8.6
0.403	552	18.1
0.101	348	23.3
0	287	32.2

hu IL-13		
Conc., (pg/mL)	Average Signal	%CV
530	838 874	1.9
133	179 355	2.6
33.1	25 216	3.3
8.28	3174	2.6
2.07	809	5.5
0.518	341	18.8
0.129	238	13.5
0	195	14.9

hu TNF- α		
Conc., (pg/mL)	Average Signal	%CV
316	389 157	2.7
79.0	92 762	2.9
19.8	23 569	3.4
4.94	5 832	3.4
1.23	1 721	3.8
0.309	543	8.7
0.077	270	11.8
0	160	14.6



CERTIFICATE OF ANALYSIS

COA-04582

Proinflammatory Panel 1 (human) Kit V-PLEX Components			
Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0045322	2-8°C	30 NOV 2016
Anti-hu IFN- γ Antibody	D0080292	2-8°C	31 AUG 2016
Anti-hu IL-1 β Antibody	D0080293	2-8°C	31 AUG 2016
Anti-hu IL-2 Antibody	D0080182	2-8°C	31 MAR 2016
Anti-hu IL-4 Antibody	D0080295	2-8°C	31 AUG 2016
Anti-hu IL-6 Antibody	D0080296	2-8°C	31 AUG 2016
Anti-hu IL-8 Antibody	D0080297	2-8°C	31 AUG 2016
Anti-hu IL-10 Antibody	D0080178	2-8°C	31 MAR 2016
Anti-hu IL-12p70 Antibody	D0080179	2-8°C	31 MAR 2016
Anti-hu IL-13 Antibody	D0080180	2-8°C	31 MAR 2016
Anti-hu TNF- α Antibody	D0080301	2-8°C	31 AUG 2016
Proinflammatory Panel 1 (human) Calibrator Blend	A0080036	2-8°C	31 MAR 2019
Diluent 2	M0020083	$\leq -10^{\circ}\text{C}$	31 JUL 2016
Diluent 3	M0030061	$\leq -10^{\circ}\text{C}$	31 AUG 2016
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 (human) Control 1	Not Kit Specific; See Separate Control Pack COA		
Proinflammatory Panel 1 (human) Control 2			
Proinflammatory Panel 1 (human) 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	Caitlin Hansen	Quality Control		14 JUL 2014