

CERTIFICATE OF ANALYSIS

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Product Description: V-PLEX® and V-PLEX Plus Proinflammatory Panel 1 (human) Kit
Kit Catalog Numbers: K15049-series, K15052-series, K15053-series
Kit Lot Number: K0080929
Expiration Date: 31 Jul 2019

Acceptance Data/ Percent Recovery Specifications:

Spot	Name	Calibrator		Proinflammatory Panel 1 (human) Control 1		Proinflammatory Panel 1 (human) Control 2		Proinflammatory Panel 1 (human) Control 3	
		Recovery	CV	Recovery	CV	Recovery	CV	Recovery	CV
1	hu IFN- γ	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
2	hu IL-1 β	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
3	hu IL-2	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
4	hu IL-4	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
5	hu IL-6	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
6	hu IL-8	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
7	hu IL-10	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
8	hu IL-12p70	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
9	hu IL-13	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
10	hu TNF- α	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%

Spot	Name	LLOQ			ULOQ		
		Value	Recovery	CV	Value	Recovery	CV
1	hu IFN- γ	7.47	80% - 120%	< 20%	938	80% - 120%	< 20%
2	hu IL-1 β	2.14	80% - 120%	< 20%	375	80% - 120%	< 20%
3	hu IL-2	0.890	80% - 120%	< 20%	938	80% - 120%	< 20%
4	hu IL-4	0.450	80% - 120%	< 20%	158	80% - 120%	< 20%
5	hu IL-6	1.58	80% - 120%	< 20%	488	80% - 120%	< 20%
6	hu IL-8	1.13	80% - 120%	< 20%	375	80% - 120%	< 20%
7	hu IL-10	0.680	80% - 120%	< 20%	233	80% - 120%	< 20%
8	hu IL-12p70	1.22	80% - 120%	< 20%	315	80% - 120%	< 20%
9	hu IL-13	4.21	80% - 120%	< 20%	353	80% - 120%	< 20%
10	hu TNF- α	0.690	80% - 120%	< 20%	248	80% - 120%	< 20%

Acceptance Data/ Non Specific Binding Specifications:

Spot	Name	NSB Spec
1	hu IFN- γ	< 1.0%
2	hu IL-1 β	< 1.0%
3	hu IL-2	< 1.0%
4	hu IL-4	< 1.0%
5	hu IL-6	< 1.0%
6	hu IL-8	< 1.0%
7	hu IL-10	< 1.0%
8	hu IL-12p70	< 1.0%
9	hu IL-13	< 1.0%
10	hu TNF- α	< 1.0%

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Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	hu IFN- γ	Calibrator	1500	pg/mL
		Proinflammatory Panel 1 (human) Control 1	682	pg/mL
		Proinflammatory Panel 1 (human) Control 2	183	pg/mL
		Proinflammatory Panel 1 (human) Control 3	52.3	pg/mL
2	hu IL-1 β	Calibrator	589	pg/mL
		Proinflammatory Panel 1 (human) Control 1	215	pg/mL
		Proinflammatory Panel 1 (human) Control 2	52	pg/mL
		Proinflammatory Panel 1 (human) Control 3	11	pg/mL
3	hu IL-2	Calibrator	1490	pg/mL
		Proinflammatory Panel 1 (human) Control 1	431	pg/mL
		Proinflammatory Panel 1 (human) Control 2	42.3	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.83	pg/mL
4	hu IL-4	Calibrator	263	pg/mL
		Proinflammatory Panel 1 (human) Control 1	101	pg/mL
		Proinflammatory Panel 1 (human) Control 2	20.3	pg/mL
		Proinflammatory Panel 1 (human) Control 3	2.88	pg/mL
5	hu IL-6	Calibrator	721	pg/mL
		Proinflammatory Panel 1 (human) Control 1	275	pg/mL
		Proinflammatory Panel 1 (human) Control 2	50.7	pg/mL
		Proinflammatory Panel 1 (human) Control 3	9.03	pg/mL
6	hu IL-8	Calibrator	553	pg/mL
		Proinflammatory Panel 1 (human) Control 1	223	pg/mL
		Proinflammatory Panel 1 (human) Control 2	40.4	pg/mL
		Proinflammatory Panel 1 (human) Control 3	5.91	pg/mL
7	hu IL-10	Calibrator	365	pg/mL
		Proinflammatory Panel 1 (human) Control 1	133	pg/mL
		Proinflammatory Panel 1 (human) Control 2	27.8	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.61	pg/mL
8	hu IL-12p70	Calibrator	487	pg/mL
		Proinflammatory Panel 1 (human) Control 1	168	pg/mL
		Proinflammatory Panel 1 (human) Control 2	33.2	pg/mL
		Proinflammatory Panel 1 (human) Control 3	6.12	pg/mL
9	hu IL-13	Calibrator	465	pg/mL
		Proinflammatory Panel 1 (human) Control 1	150	pg/mL
		Proinflammatory Panel 1 (human) Control 2	46.7	pg/mL
		Proinflammatory Panel 1 (human) Control 3	12.3	pg/mL
10	hu TNF- α	Calibrator	388	pg/mL
		Proinflammatory Panel 1 (human) Control 1	89.6	pg/mL
		Proinflammatory Panel 1 (human) Control 2	18	pg/mL
		Proinflammatory Panel 1 (human) Control 3	2.72	pg/mL

Controls tested may not be the same lot as shipped.

hu IFN- γ - Spot 1

hu IL-1 β - Spot 2

hu IL-2 - Spot 3

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Conc. pg/mL	ECL Signal	%CV
1500	388,000	1.8
375	110,000	2.3
93.8	28,000	3.0
23.4	7,070	2.8
5.86	1,950	2.3
1.46	697	3.2
0.366	359	7.1
0.00	268	13.0

Conc. pg/mL	ECL Signal	%CV
589	1,970,000	1.9
147	560,000	1.9
36.8	144,000	2.0
9.20	36,900	4.2
2.30	9,880	1.7
0.575	3,360	7.6
0.144	1,530	2.5
0.00	1,010	5.2

Conc. pg/mL	ECL Signal	%CV
1490	1,150,000	1.8
373	337,000	1.5
93.1	90,800	2.1
23.3	22,700	1.5
5.82	6,090	2.8
1.46	1,750	3.9
0.364	664	4.4
0.00	292	7.5

hu IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
263	962,000	2.7
65.8	301,000	3.2
16.4	82,700	3.1
4.11	20,900	3.1
1.03	5,240	5.0
0.257	1,440	4.4
0.0642	458	6.4
0.00	129	16.0

hu IL-6 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
721	1,350,000	4.1
180	319,000	2.9
45.1	69,000	3.9
11.3	15,700	3.2
2.82	4,100	2.8
0.704	1,130	2.4
0.176	396	5.6
0.00	143	12.0

hu IL-8 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
553	649,000	2.2
138	178,000	1.9
34.6	43,800	2.4
8.64	10,800	2.3
2.16	2,830	2.1
0.540	823	2.4
0.135	316	4.1
0.00	149	13.0

hu IL-10 - Spot 7		
Conc. pg/mL	ECL Signal	%CV
365	650,000	1.9
91.3	197,000	1.1
22.8	51,800	2.4
5.70	13,000	2.3
1.43	3,500	1.6
0.356	1,050	1.7
0.0891	444	3.8
0.00	224	8.9

hu IL-12p70 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
487	459,000	4.1
122	142,000	2.5
30.4	36,900	3.0
7.61	9,250	2.7
1.90	2,430	3.9
0.476	792	5.6
0.119	344	11.0
0.00	229	16.0

hu IL-13 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
465	1,010,000	3.0
116	184,000	1.9
29.1	25,200	2.3
7.27	3,640	2.8
1.82	885	2.9
0.454	288	7.3
0.114	156	11.0
0.00	113	16.0

hu TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
388	426,000	1.9
97.0	108,000	1.4
24.3	26,600	3.2
6.06	6,330	4.1
1.52	1,750	2.6
0.379	569	4.0
0.0947	277	10.0
0.00	175	16.0

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Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0046701	2-8°C	31 May 2020
Anti-hu IFN- γ Antibody	D0080914	2-8°C	31 Jul 2019
Anti-hu IL-1 β Antibody	D0080915	2-8°C	31 Jul 2019
Anti-hu IL-2 Antibody	D0080916	2-8°C	31 Aug 2019
Anti-hu IL-4 Antibody	D0080917	2-8°C	31 Jul 2019
Anti-hu IL-6 Antibody	D0080918	2-8°C	31 Jul 2019
Anti-hu IL-8 Antibody	D0080919	2-8°C	31 Jul 2019
Anti-hu IL-10 Antibody	D0080920	2-8°C	31 Jul 2019
Anti-hu IL-12p70 Antibody	D0080921	2-8°C	31 Jul 2019
Anti-hu IL-13 Antibody	D0081059	2-8°C	30 Apr 2020
Anti-hu TNF- α Antibody	D0081020	2-8°C	31 Jan 2020
Proinflammatory Panel 1 (human) Calibrator Blend	A0080141	2-8°C	31 Aug 2022
Diluent 2	M0020098	$\leq -10^{\circ}\text{C}$	28 Feb 2020
Diluent 3	M0030080	$\leq -10^{\circ}\text{C}$	31 May 2020
MSD Read Buffer T	Not Kit Specific	Not Kit Specific	N/A

Additional Components Included in V-PLEX Plus	
Plate Seals	Not Kit Specific
Wash Buffer (20x), 1000mL	Not Kit Specific
Proinflammatory Panel 1 (human) Control 1	Not Kit Specific
Proinflammatory Panel 1 (human) Control 2	Not Kit Specific
Proinflammatory Panel 1 (human) Control 3	Not Kit Specific

Statement:

The above product is intended for Research Use Only. Not for use in Diagnostic Procedures.

	Name	Function	Signature	Date
Review/Approval	Dawn Stollar	Quality Assurance		13 MAR 2018