



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: K0080809
Expiration Date: 30 Apr 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%

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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%

Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	hu IFN- γ	Calibrator	1400	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	575	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	1530	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	283	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	765	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

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6	hu IL-8	Calibrator	599	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	374	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	501	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	496	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	368	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.

Standard Curve Data:

hu IFN- γ - Spot 1			hu IL-1 β - Spot 2			hu IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV
1400	412,000	2.0	575	1,100,000	3.7	1530	1,170,000	1.9
350	115,000	1.4	144	313,000	1.9	383	333,000	2.0
87.5	29,400	2.2	35.9	80,800	2.4	95.6	89,800	2.5
21.9	7,510	1.6	8.98	20,200	2.5	23.9	22,100	2.8
5.47	2,050	2.0	2.25	5,630	2.8	5.98	6,220	2.7
1.37	726	2.3	0.562	1,840	2.6	1.49	1,780	3.5
0.342	384	6.7	0.140	908	3.9	0.374	705	3.9
0.00	258	8.0	0.00	556	4.3	0.00	322	10.0

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hu IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
283	976,000	3.1
70.8	311,000	3.1
17.7	85,200	3.2
4.42	22,000	2.0
1.11	5,510	2.8
0.276	1,560	2.7
0.0691	505	6.5
0.00	155	19.0

hu IL-6 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
765	1,420,000	4.2
191	331,000	3.5
47.8	66,300	3.4
12.0	14,700	3.0
2.99	3,660	2.7
0.747	1,010	3.1
0.187	349	5.8
0.00	119	23.0

hu IL-8 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
599	663,000	3.0
150	167,000	2.7
37.4	41,400	3.1
9.36	9,870	2.7
2.34	2,850	2.5
0.585	912	4.3
0.146	418	12.0
0.00	209	11.0

hu IL-10 - Spot 7		
Conc. pg/mL	ECL Signal	%CV
374	745,000	2.1
93.5	220,000	1.2
23.4	58,500	1.5
5.84	14,600	2.4
1.46	4,080	3.4
0.365	1,290	4.6
0.0913	580	8.4
0.00	447	19.0

hu IL-12p70 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
501	458,000	5.7
125	141,000	2.9
31.3	36,700	3.0
7.83	9,310	5.5
1.96	2,470	2.1
0.489	795	4.2
0.122	414	14.0
0.00	286	26.0

hu IL-13 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
496	772,000	2.9
124	137,000	2.4
31.0	17,700	2.1
7.75	2,430	2.3
1.94	642	7.2
0.484	359	12.0
0.121	253	23.0
0.00	256	28.0

hu TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
368	398,000	2.4
92.0	94,400	3.1
23.0	23,900	2.2
5.75	5,900	3.0
1.44	1,840	3.0
0.359	750	5.0
0.0898	499	12.0
0.00	406	9.9



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Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0046498	2-8°C	31 Oct 2019
Anti-hu IFN- γ Antibody	D0080868	2-8°C	31 May 2019
Anti-hu IL-1 β Antibody	D0080746	2-8°C	31 May 2019
Anti-hu IL-2 Antibody	D0080784	2-8°C	30 Apr 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	D0080749	2-8°C	31 May 2019
Anti-hu IL-10 Antibody	D0080869	2-8°C	31 May 2019
Anti-hu IL-12p70 Antibody	D0080921	2-8°C	31 Jul 2019
Anti-hu IL-13 Antibody	D0080922	2-8°C	30 Sep 2019
Anti-hu TNF- α Antibody	D0080923	2-8°C	31 Jul 2019
Proinflammatory Panel 1 (human) Calibrator Blend	A0080127	2-8°C	30 Apr 2022
Diluent 2	M0020095	$\leq -10^{\circ}\text{C}$	30 Sep 2019
Diluent 3	M0030076	$\leq -10^{\circ}\text{C}$	30 Sep 2019
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), 100mL	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		07 JUN 2017