

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: K0080894
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	1380	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	566	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	1410	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	246	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	712	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	556	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	356	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	497	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	492	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	369	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.

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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
1380	252,000	1.4	566	1,460,000	3.7	1410	1,110,000	1.9
345	68,600	1.9	142	409,000	2.9	353	328,000	1.5
86.3	18,000	1.6	35.4	108,000	2.3	88.1	89,900	1.1
21.6	4,820	2.1	8.84	27,900	1.9	22.0	23,100	2.2
5.39	1,510	2.2	2.21	7,950	2.9	5.51	6,230	2.0
1.35	701	5.0	0.553	2,930	2.8	1.38	1,870	2.8
0.337	500	5.8	0.138	1,650	5.3	0.344	817	4.9
0.00	419	5.7	0.00	1,210	4.9	0.00	427	5.7

hu IL-4 - Spot 4			hu IL-6 - Spot 5			hu IL-8 - Spot 6		
Conc. pg/ml	ECL Signal	%CV	Conc. pg/ml	ECL Signal	%CV	Conc. pg/ml	ECL Signal	%CV
246	897,000	3.0	712	1,320,000	2.9	556	596,000	2.6
61.5	277,000	1.6	178	329,000	3.5	139	162,000	2.7
15.4	77,600	2.4	44.5	75,300	2.7	34.8	42,500	2.9
3.84	20,500	2.8	11.1	17,900	1.8	8.69	10,800	2.5
0.961	5,300	3.7	2.78	4,420	2.2	2.17	2,970	2.9
0.240	1,540	2.9	0.695	1,270	2.8	0.543	958	2.7
0.0601	560	7.5	0.174	467	5.2	0.136	462	5.5
0.00	222	15.0	0.00	202	15.0	0.00	285	7.6

hu IL-10 - Spot 7			hu IL-12p70 - Spot 8			hu IL-13 - Spot 9		
Conc. pg/ml	ECL Signal	%CV	Conc. pg/ml	ECL Signal	%CV	Conc. pg/ml	ECL Signal	%CV
356	623,000	1.2	497	371,000	3.0	492	761,000	1.9
89.0	187,000	1.8	124	115,000	3.4	123	141,000	3.4
22.3	50,700	2.5	31.1	32,000	2.2	30.8	17,400	2.1
5.56	13,000	2.4	7.77	8,410	2.9	7.69	2,560	2.1
1.39	3,580	1.8	1.94	2,300	3.5	1.92	704	4.4
0.348	1,180	2.5	0.485	883	7.1	0.480	305	6.0
0.0869	547	7.2	0.121	481	10.0	0.120	208	7.4
0.00	341	8.4	0.00	520	19.0	0.00	192	12.0

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hu TNF- α - Spot 10		
Conc. pg/ml	ECL Signal	%CV
369	364,000	3.0
92.3	95,100	2.2
23.1	24,100	2.3
5.77	6,200	2.2
1.44	1,930	4.0
0.360	825	3.0
0.0901	543	6.3
0.00	439	5.6

Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0046549	2-8°C	30 Nov 2019
Anti-hu IFN- γ Antibody	D0081003	2-8°C	30 Nov 2019
Anti-hu IL-1 β Antibody	D0080915	2-8°C	31 Jul 2019
Anti-hu IL-2 Antibody	D0080982	2-8°C	31 Oct 2019
Anti-hu IL-4 Antibody	D0081005	2-8°C	30 Nov 2019
Anti-hu IL-6 Antibody	D0081006	2-8°C	30 Nov 2019
Anti-hu IL-8 Antibody	D0080919	2-8°C	31 Jul 2019
Anti-hu IL-10 Antibody	D0081007	2-8°C	30 Nov 2019
Anti-hu IL-12p70 Antibody	D0081008	2-8°C	30 Nov 2019
Anti-hu IL-13 Antibody	D0080922	2-8°C	30 Sep 2019
Anti-hu TNF- α Antibody	D0081002	2-8°C	31 Oct 2019
Proinflammatory Panel 1 (human) Calibrtror Blend	A0080147	2-8°C	31 Aug 2022
Diluent 2	M0020096	$\leq$ -10°C	30 Nov 2019
Diluent 3	M0030077	$\leq$ -10°C	30 Nov 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		29 SEP 2017