

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: K0080887
Expiration Date: 31 May 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		
Conc. pg/ml	ECL Signal	%CV
1380	352,000	1.3
345	98,700	1.4
86.3	25,300	2.6
21.6	6,590	2.8
5.39	1,920	2.5
1.35	838	4.9
0.337	540	6.1
0.00	451	7.6

hu IL-1 β - Spot 2		
Conc. pg/ml	ECL Signal	%CV
566	1,100,000	2.0
142	309,000	1.8
35.4	79,800	1.7
8.84	20,800	1.7
2.21	6,130	2.4
0.553	2,510	2.0
0.138	1,580	2.3
0.00	1,270	3.7

hu IL-2 - Spot 3		
Conc. pg/ml	ECL Signal	%CV
1410	1,140,000	2.6
353	331,000	1.7
88.1	92,800	1.5
22.0	23,100	2.0
5.51	6,570	3.2
1.38	2,030	3.4
0.344	903	4.7
0.00	542	3.9

hu IL-4 - Spot 4		
Conc. pg/ml	ECL Signal	%CV
246	882,000	3.6
61.5	276,000	3.3
15.4	76,300	3.1
3.84	19,500	5.9
0.961	4,960	4.8
0.240	1,450	3.4
0.0601	519	5.7
0.00	193	19.0

hu IL-6 - Spot 5		
Conc. pg/ml	ECL Signal	%CV
712	1,310,000	2.2
178	316,000	1.9
44.5	69,500	2.4
11.1	16,400	2.6
2.78	4,040	1.9
0.695	1,170	3.0
0.174	412	5.2
0.00	170	10.0

hu IL-8 - Spot 6		
Conc. pg/ml	ECL Signal	%CV
556	569,000	2.6
139	151,000	1.8
34.8	39,700	2.2
8.69	9,780	2.3
2.17	2,860	2.0
0.543	927	2.8
0.136	444	5.7
0.00	291	8.4

hu IL-10 - Spot 7		
Conc. pg/ml	ECL Signal	%CV
356	591,000	1.4
89.0	174,000	1.4
22.3	45,600	1.7
5.56	11,400	2.5
1.39	3,260	1.9
0.348	1,110	2.6
0.0869	582	3.7
0.00	388	6.9

hu IL-12p70 - Spot 8		
Conc. pg/ml	ECL Signal	%CV
497	362,000	3.3
124	111,000	2.3
31.1	30,200	2.1
7.77	8,000	3.4
1.94	2,180	3.4
0.485	849	6.4
0.121	520	18.0
0.00	410	14.0

hu IL-13 - Spot 9		
Conc. pg/ml	ECL Signal	%CV
492	679,000	3.5
123	120,000	2.2
30.8	15,200	2.5
7.69	2,250	3.5
1.92	648	3.4
0.480	290	6.4
0.120	216	11.0
0.00	186	11.0

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hu TNF- α - Spot 10		
Conc. pg/ml	ECL Signal	%CV
369	365,000	2.2
92.3	90,000	2.3
23.1	23,100	2.3
5.77	5,720	2.5
1.44	1,880	2.7
0.360	772	7.6
0.0901	470	7.4
0.00	412	14.0

Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0046639	2-8°C	28 Feb 2020
Anti-hu IFN- γ Antibody	D0080914	2-8°C	31 Jul 2019
Anti-hu IL-1 β Antibody	D0080746	2-8°C	31 May 2019
Anti-hu IL-2 Antibody	D0081011	2-8°C	31 Dec 2019
Anti-hu IL-4 Antibody	D0081005	2-8°C	30 Nov 2019
Anti-hu IL-6 Antibody	D0080748	2-8°C	31 May 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	D0081009	2-8°C	30 Nov 2019
Anti-hu TNF- α Antibody	D0081020	2-8°C	31 Jan 2020
Proinflammatory Panel 1 (human) Calibrator Blend	A0080147	2-8°C	31 Aug 2022
Diluent 2	M0020096	$\leq$ -10°C	30 Nov 2019
Diluent 3	M0030078	$\leq$ -10°C	31 Jan 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), 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

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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		11 OCT 2017