

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: K0080822

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	Value	LLOQ		Value	ULOQ	
			Recovery	CV		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	1460	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	573	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	260	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	743	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	577	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	366	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	475	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	499	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.

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Standard Curve Data:

hu IFN- γ - Spot 1		
Conc. pg/ml	ECL Signal	%CV
1460	365,000	2.2
365	99,700	1.3
91.3	25,900	1.2
22.8	6,530	2.1
5.70	1,900	2.6
1.43	754	5.3
0.356	442	6.8
0.00	339	14.0

hu IL-1 β - Spot 2		
Conc. pg/ml	ECL Signal	%CV
573	1,280,000	3.1
143	344,000	2.5
35.8	92,200	1.9
8.95	22,400	2.5
2.24	6,200	3.7
0.560	2,090	3.4
0.140	1,060	3.1
0.00	661	6.0

hu IL-2 - Spot 3		
Conc. pg/ml	ECL Signal	%CV
1490	1,090,000	2.7
373	318,000	1.7
93.1	85,600	2.7
23.3	20,600	4.4
5.82	5,340	8.2
1.46	1,530	3.6
0.364	596	6.3
0.00	275	9.7

hu IL-4 - Spot 4		
Conc. pg/ml	ECL Signal	%CV
260	940,000	2.7
65.0	286,000	3.3
16.3	76,000	3.5
4.06	19,300	2.5
1.02	5,140	3.6
0.254	1,440	5.8
0.0635	499	9.0
0.00	198	23.0

hu IL-6 - Spot 5		
Conc. pg/ml	ECL Signal	%CV
743	1,250,000	4.4
186	307,000	1.9
46.4	68,100	2.0
11.6	15,300	2.9
2.90	3,950	3.2
0.726	1,110	3.7
0.181	395	7.2
0.00	150	21.0

hu IL-8 - Spot 6		
Conc. pg/ml	ECL Signal	%CV
577	600,000	2.6
144	161,000	2.1
36.1	41,300	2.6
9.02	10,100	2.8
2.25	2,690	2.8
0.563	820	2.8
0.141	385	16.0
0.00	196	16.0

hu IL-10 - Spot 7		
Conc. pg/ml	ECL Signal	%CV
366	645,000	1.5
91.5	191,000	1.5
22.9	50,000	2.0
5.72	12,300	1.7
1.43	3,360	2.2
0.357	1,020	2.3
0.0894	428	6.7
0.00	243	12.0

hu IL-12p70 - Spot 8		
Conc. pg/ml	ECL Signal	%CV
475	389,000	9.0
119	120,000	3.0
29.7	32,400	2.9
7.42	8,120	5.0
1.86	2,470	3.3
0.464	1,050	10.0
0.116	672	19.0
0.00	678	26.0

hu IL-13 - Spot 9		
Conc. pg/ml	ECL Signal	%CV
499	700,000	3.3
125	127,000	3.8
31.2	17,400	2.6
7.80	2,590	3.3
1.95	715	5.3
0.487	296	14.0
0.122	195	19.0
0.00	151	17.0

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hu TNF- α - Spot 10		
Conc. pg/ml	ECL Signal	%CV
368	343,000	3.6
92.0	86,900	3.6
23.0	21,800	2.7
5.75	5,400	2.7
1.44	1,650	2.2
0.359	651	5.1
0.0898	395	7.3
0.00	309	11.0

Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0046526	2-8°C	30 Nov 2019
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	D0080982	2-8°C	31 Oct 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	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	A0080133	2-8°C	30 Apr 2022
Diluent 2	M0020096	$\leq -10^{\circ}\text{C}$	30 Nov 2019
Diluent 3	M0030077	$\leq -10^{\circ}\text{C}$	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		12 JUL 2017