

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: K0080965
Expiration Date: 31 Oct 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	1460	pg/mL
		Proinflammatory Panel 1 (human) Control 1	574	pg/mL
		Proinflammatory Panel 1 (human) Control 2	155	pg/mL
		Proinflammatory Panel 1 (human) Control 3	41.8	pg/mL
2	hu IL-1 β	Calibrator	587	pg/mL
		Proinflammatory Panel 1 (human) Control 1	202	pg/mL
		Proinflammatory Panel 1 (human) Control 2	50.4	pg/mL
		Proinflammatory Panel 1 (human) Control 3	10.7	pg/mL
3	hu IL-2	Calibrator	1510	pg/mL
		Proinflammatory Panel 1 (human) Control 1	400	pg/mL
		Proinflammatory Panel 1 (human) Control 2	41.2	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.48	pg/mL
4	hu IL-4	Calibrator	287	pg/mL
		Proinflammatory Panel 1 (human) Control 1	100	pg/mL
		Proinflammatory Panel 1 (human) Control 2	20.1	pg/mL
		Proinflammatory Panel 1 (human) Control 3	2.97	pg/mL
5	hu IL-6	Calibrator	742	pg/mL
		Proinflammatory Panel 1 (human) Control 1	264	pg/mL
		Proinflammatory Panel 1 (human) Control 2	41.2	pg/mL
		Proinflammatory Panel 1 (human) Control 3	8.24	pg/mL
6	hu IL-8	Calibrator	598	pg/mL
		Proinflammatory Panel 1 (human) Control 1	233	pg/mL
		Proinflammatory Panel 1 (human) Control 2	36.9	pg/mL
		Proinflammatory Panel 1 (human) Control 3	5.93	pg/mL
7	hu IL-10	Calibrator	378	pg/mL
		Proinflammatory Panel 1 (human) Control 1	125	pg/mL
		Proinflammatory Panel 1 (human) Control 2	23.3	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.47	pg/mL
8	hu IL-12p70	Calibrator	520	pg/mL
		Proinflammatory Panel 1 (human) Control 1	182	pg/mL
		Proinflammatory Panel 1 (human) Control 2	34	pg/mL
		Proinflammatory Panel 1 (human) Control 3	6.95	pg/mL
9	hu IL-13	Calibrator	501	pg/mL
		Proinflammatory Panel 1 (human) Control 1	164	pg/mL
		Proinflammatory Panel 1 (human) Control 2	46.4	pg/mL
		Proinflammatory Panel 1 (human) Control 3	12.9	pg/mL
10	hu TNF- α	Calibrator	378	pg/mL
		Proinflammatory Panel 1 (human) Control 1	86.7	pg/mL
		Proinflammatory Panel 1 (human) Control 2	16	pg/mL
		Proinflammatory Panel 1 (human) Control 3	2.06	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	276,000	1.8
365	70,500	1.6
91.3	17,500	2.5
22.8	4,520	2.1
5.70	1,360	3.9
1.43	573	4.6
0.356	374	6.5
0.00	304	8.5

hu IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
587	1,620,000	2.7
147	449,000	1.9
36.7	115,000	2.7
9.17	29,700	2.1
2.29	8,140	5.8
0.573	2,800	2.2
0.143	1,440	1.9
0.00	1,020	4.9

hu IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
1510	1,090,000	13.0
378	276,000	7.5
94.4	76,100	13.0
23.6	19,100	13.0
5.90	5,280	8.0
1.47	1,600	4.2
0.369	718	7.5
0.00	359	14.0

hu IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
287	1,010,000	2.7
71.8	305,000	2.7
17.9	82,200	1.6
4.48	20,900	2.5
1.12	5,320	2.7
0.280	1,450	4.2
0.0701	462	6.3
0.00	139	10.0

hu IL-6 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
742	1,460,000	2.3
186	338,000	1.9
46.4	72,400	2.8
11.6	16,700	3.1
2.90	4,200	2.3
0.725	1,130	2.9
0.181	378	4.4
0.00	135	12.0

hu IL-8 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
598	714,000	2.4
150	183,000	1.8
37.4	45,200	2.1
9.34	11,200	2.1
2.34	3,040	3.9
0.584	893	3.2
0.146	374	5.1
0.00	193	6.6

hu IL-10 - Spot 7		
Conc. pg/mL	ECL Signal	%CV
378	698,000	2.6
94.5	200,000	1.8
23.6	53,000	1.7
5.91	13,100	3.8
1.48	3,600	1.8
0.369	1,080	3.0
0.0923	478	5.9
0.00	275	9.0

hu IL-12p70 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
520	431,000	2.4
130	127,000	2.3
32.5	33,500	1.9
8.13	8,560	2.9
2.03	2,290	3.1
0.508	732	4.6
0.127	353	7.2
0.00	233	14.0

hu IL-13 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
501	1,150,000	1.6
125	186,000	2.1
31.3	23,300	2.1
7.83	3,680	2.4
1.96	972	3.6
0.489	336	6.5
0.122	180	10.0
0.00	137	10.0

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hu TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
378	388,000	4.8
94.5	93,100	3.0
23.6	22,400	3.9
5.91	5,660	5.0
1.48	1,680	3.4
0.369	609	5.4
0.0923	340	7.7
0.00	250	10.0

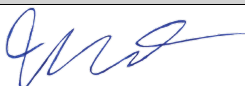
Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0046770	2-8°C	31 Aug 2020
Anti-hu IFN- γ Antibody	D0081074	2-8°C	31 Aug 2021
Anti-hu IL-1 β Antibody	D0081082	2-8°C	30 Sep 2021
Anti-hu IL-2 Antibody	D0081036	2-8°C	29 Feb 2020
Anti-hu IL-4 Antibody	D0081005	2-8°C	30 Nov 2019
Anti-hu IL-6 Antibody	D0081018	2-8°C	31 Jan 2020
Anti-hu IL-8 Antibody	D0081012	2-8°C	31 Dec 2019
Anti-hu IL-10 Antibody	D0081024	2-8°C	31 Jan 2020
Anti-hu IL-12p70 Antibody	D0081008	2-8°C	30 Nov 2019
Anti-hu IL-13 Antibody	D0081083	2-8°C	30 Sep 2021
Anti-hu TNF- α Antibody	D0081002	2-8°C	31 Oct 2019
Proinflammatory Panel 1 (human) Calibrator Blend	A0080153	2-8°C	31 Oct 2022
Diluent 2	M0020098	$\leq -10^{\circ}\text{C}$	28 Feb 2020
Diluent 3	M0030078	$\leq -10^{\circ}\text{C}$	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), 100 mL	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	Jessica Drolet	Quality Assurance		16 May 2018