

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: K0081064

Expiration Date: 31 Jan 2020

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	1.76	80% - 120%	< 20%	938	80% - 120%	< 20%
2	hu IL-1 β	0.646	80% - 120%	< 20%	375	80% - 120%	< 20%
3	hu IL-2	0.890	80% - 120%	< 20%	938	80% - 120%	< 20%
4	hu IL-4	0.218	80% - 120%	< 20%	158	80% - 120%	< 20%
5	hu IL-6	0.633	80% - 120%	< 20%	488	80% - 120%	< 20%
6	hu IL-8	0.591	80% - 120%	< 20%	375	80% - 120%	< 20%
7	hu IL-10	0.298	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	hu IFN- γ	hu IL-1 β	hu IL-2	hu IL-4	hu IL-6
1	hu IFN- γ	NA	< 1.0%	< 1.0%	< 1.0%	< 1.0%
2	hu IL-1 β	< 1.0%	NA	< 1.0%	< 1.0%	< 1.0%
3	hu IL-2	< 1.0%	< 1.0%	NA	< 1.0%	< 1.0%
4	hu IL-4	< 1.0%	< 1.0%	< 1.0%	NA	< 1.0%
5	hu IL-6	< 1.0%	< 1.0%	< 1.0%	< 1.0%	NA
6	hu IL-8	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
7	hu IL-10	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
8	hu IL-12p70	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
9	hu IL-13	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
10	hu TNF- α	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%

Spot	Name	hu IL-8	hu IL-10	hu IL-12p70	hu IL-13	hu TNF- α
1	hu IFN- γ	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
2	hu IL-1 β	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
3	hu IL-2	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
4	hu IL-4	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
5	hu IL-6	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
6	hu IL-8	NA	< 1.0%	< 1.0%	< 1.0%	< 1.0%
7	hu IL-10	< 1.0%	NA	< 1.0%	< 1.0%	< 1.0%
8	hu IL-12p70	< 1.0%	< 1.0%	NA	< 1.0%	< 1.0%
9	hu IL-13	< 1.0%	< 1.0%	< 1.0%	NA	< 1.0%
10	hu TNF- α	< 1.0%	< 1.0%	< 1.0%	< 1.0%	NA

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Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	hu IFN- γ	Calibrator	1280	pg/mL
		Proinflammatory Panel 1(human) Control 1	582	pg/mL
		Proinflammatory Panel 1(human) Control 2	164	pg/mL
		Proinflammatory Panel 1(human) Control 3	40.9	pg/mL
2	hu IL-1 β	Calibrator	610	pg/mL
		Proinflammatory Panel 1(human) Control 1	208	pg/mL
		Proinflammatory Panel 1(human) Control 2	52.7	pg/mL
		Proinflammatory Panel 1(human) Control 3	10.6	pg/mL
3	hu IL-2	Calibrator	1480	pg/mL
		Proinflammatory Panel 1(human) Control 1	407	pg/mL
		Proinflammatory Panel 1(human) Control 2	42.1	pg/mL
		Proinflammatory Panel 1(human) Control 3	3.54	pg/mL
4	hu IL-4	Calibrator	251	pg/mL
		Proinflammatory Panel 1(human) Control 1	101	pg/mL
		Proinflammatory Panel 1(human) Control 2	20.6	pg/mL
		Proinflammatory Panel 1(human) Control 3	2.95	pg/mL
5	hu IL-6	Calibrator	780	pg/mL
		Proinflammatory Panel 1(human) Control 1	271	pg/mL
		Proinflammatory Panel 1(human) Control 2	43.5	pg/mL
		Proinflammatory Panel 1(human) Control 3	8.03	pg/mL
6	hu IL-8	Calibrator	639	pg/mL
		Proinflammatory Panel 1(human) Control 1	233	pg/mL
		Proinflammatory Panel 1(human) Control 2	37.4	pg/mL
		Proinflammatory Panel 1(human) Control 3	6.13	pg/mL
7	hu IL-10	Calibrator	359	pg/mL
		Proinflammatory Panel 1(human) Control 1	125	pg/mL
		Proinflammatory Panel 1(human) Control 2	24.2	pg/mL
		Proinflammatory Panel 1(human) Control 3	3.49	pg/mL
8	hu IL-12p70	Calibrator	545	pg/mL
		Proinflammatory Panel 1(human) Control 1	194	pg/mL
		Proinflammatory Panel 1(human) Control 2	36.4	pg/mL
		Proinflammatory Panel 1(human) Control 3	7.29	pg/mL
9	hu IL-13	Calibrator	482	pg/mL
		Proinflammatory Panel 1(human) Control 1	168	pg/mL
		Proinflammatory Panel 1(human) Control 2	48.8	pg/mL
		Proinflammatory Panel 1(human) Control 3	13.4	pg/mL
10	hu TNF- α	Calibrator	389	pg/mL
		Proinflammatory Panel 1(human) Control 1	89.5	pg/mL
		Proinflammatory Panel 1(human) Control 2	17.4	pg/mL
		Proinflammatory Panel 1(human) Control 3	2.21	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
1280	198,000	1.9
320	52,200	1.4
80.0	14,000	8.9
20.0	3,800	7.4
5.00	1,300	3.3
1.25	733	4.1
0.313	620	10.0
0.00	576	6.6

hu IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
610	1,480,000	1.7
153	393,000	1.2
38.1	105,000	6.1
9.53	26,900	6.1
2.38	7,020	3.0
0.596	2,580	3.0
0.149	1,540	8.9
0.00	1,150	7.5

hu IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
1480	1,220,000	3.0
370	356,000	2.2
92.5	100,000	7.9
23.1	25,900	6.8
5.78	6,700	3.5
1.45	2,210	2.6
0.361	1,190	10.0
0.00	756	7.1

hu IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
251	819,000	2.8
62.8	253,000	2.3
15.7	70,300	8.0
3.92	18,200	8.8
0.980	4,320	3.9
0.245	1,270	3.8
0.0613	519	8.1
0.00	237	11.0

hu IL-6 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
780	1,470,000	1.8
195	361,000	1.6
48.8	82,500	6.7
12.2	19,500	7.6
3.05	4,590	2.6
0.762	1,300	2.4
0.190	534	8.6
0.00	239	11.0

hu IL-8 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
639	711,000	3.1
160	188,000	2.8
39.9	49,800	5.9
9.98	12,700	5.2
2.50	3,280	4.5
0.624	1,070	2.1
0.156	579	11.0
0.00	373	12.0

hu IL-10 - Spot 7		
Conc. pg/mL	ECL Signal	%CV
359	714,000	1.8
89.8	209,000	2.3
22.4	58,100	7.0
5.61	14,600	7.3
1.40	3,850	2.9
0.351	1,260	2.9
0.0876	688	7.7
0.00	444	8.0

hu IL-12p70 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
545	475,000	2.0
136	145,000	2.1
34.1	40,200	5.5
8.52	10,500	7.1
2.13	2,680	2.2
0.532	944	3.9
0.133	521	10.0
0.00	375	13.0

hu IL-13 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
482	1,040,000	2.8
121	180,000	1.9
30.1	25,400	6.5
7.53	4,220	9.8
1.88	1,080	3.7
0.471	416	6.0
0.118	270	8.4
0.00	214	7.9

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hu TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
389	331,000	2.3
97.3	83,800	2.8
24.3	22,000	7.6
6.08	5,620	9.5
1.52	1,670	3.9
0.380	735	5.9
0.0950	550	11.0
0.00	462	12.0

Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0046884	2-8°C	31 Jan 2021
Anti-hu IFN- γ Antibody	D0081094	2-8°C	30 Nov 2021
Anti-hu IL-1 β Antibody	D0081095	2-8°C	31 Dec 2021
Anti-hu IL-2 Antibody	D0081096	2-8°C	30 Nov 2021
Anti-hu IL-4 Antibody	D0081126	2-8°C	31 Jan 2022
Anti-hu IL-6 Antibody	D0081078	2-8°C	31 Oct 2021
Anti-hu IL-8 Antibody	D0081097	2-8°C	30 Nov 2021
Anti-hu IL-10 Antibody	D0081098	2-8°C	31 Jan 2022
Anti-hu IL-12p70 Antibody	D0081019	2-8°C	31 Jan 2020
Anti-hu IL-13 Antibody	D0081092	2-8°C	31 Oct 2021
Anti-hu TNF- α Antibody	D0081099	2-8°C	30 Nov 2021
Proinflammatory Panel 1 (human) Calibrator Blend	A0080174	2-8°C	31 Jul 2023
Diluent 2	M0020099	\leq -10°C	31 Mar 2020
Diluent 3	M0030084	\leq -10°C	31 Jan 2021
MSD Read Buffer T	Not Kit Specific	Not Kit Specific	N/A

Additional Components Included in V-PLEX Plus	
MSD Wash Buffer (20x), 100mL	Not Kit Specific
Plate Seals	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	<i>Dawn Stollar</i>	25 SEP 2018