

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, K151QR-Series, K151OD-Series
Kit Lot Number: K0081189
Expiration Date: 31 Mar 2021

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%

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	1230	pg/mL
		Proinflammatory Panel 1 (human) Control 1	512	pg/mL
		Proinflammatory Panel 1 (human) Control 2	132	pg/mL
		Proinflammatory Panel 1 (human) Control 3	40.9	pg/mL
2	hu IL-1 β	Calibrator	576	pg/mL
		Proinflammatory Panel 1 (human) Control 1	203	pg/mL
		Proinflammatory Panel 1 (human) Control 2	47.1	pg/mL
		Proinflammatory Panel 1 (human) Control 3	10.9	pg/mL
3	hu IL-2	Calibrator	1470	pg/mL
		Proinflammatory Panel 1 (human) Control 1	390	pg/mL
		Proinflammatory Panel 1 (human) Control 2	38.3	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.34	pg/mL
4	hu IL-4	Calibrator	208	pg/mL
		Proinflammatory Panel 1 (human) Control 1	102	pg/mL
		Proinflammatory Panel 1 (human) Control 2	20	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.05	pg/mL
5	hu IL-6	Calibrator	765	pg/mL
		Proinflammatory Panel 1 (human) Control 1	264	pg/mL
		Proinflammatory Panel 1 (human) Control 2	46.8	pg/mL
		Proinflammatory Panel 1 (human) Control 3	8.18	pg/mL
6	hu IL-8	Calibrator	569	pg/mL
		Proinflammatory Panel 1 (human) Control 1	235	pg/mL
		Proinflammatory Panel 1 (human) Control 2	36.2	pg/mL
		Proinflammatory Panel 1 (human) Control 3	5.93	pg/mL
7	hu IL-10	Calibrator	367	pg/mL
		Proinflammatory Panel 1 (human) Control 1	133	pg/mL
		Proinflammatory Panel 1 (human) Control 2	25.3	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.32	pg/mL
8	hu IL-12p70	Calibrator	528	pg/mL
		Proinflammatory Panel 1 (human) Control 1	186	pg/mL
		Proinflammatory Panel 1 (human) Control 2	35.6	pg/mL
		Proinflammatory Panel 1 (human) Control 3	6.99	pg/mL
9	hu IL-13	Calibrator	505	pg/mL
		Proinflammatory Panel 1 (human) Control 1	170	pg/mL
		Proinflammatory Panel 1 (human) Control 2	43.8	pg/mL
		Proinflammatory Panel 1 (human) Control 3	12.7	pg/mL
10	hu TNF- α	Calibrator	347	pg/mL
		Proinflammatory Panel 1 (human) Control 1	92	pg/mL
		Proinflammatory Panel 1 (human) Control 2	17.2	pg/mL
		Proinflammatory Panel 1 (human) Control 3	2.53	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
1230	192,000	2.2
308	51,100	2.5
76.9	12,800	3.8
19.2	3,390	3.6
4.80	1,070	3.4
1.20	494	5.6
0.300	336	5.7
0.00	298	8.0

hu IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
576	1,510,000	2.0
144	410,000	2.1
36.0	105,000	2.0
9.00	26,600	1.9
2.25	7,340	3.4
0.563	2,330	2.6
0.141	1,120	3.5
0.00	664	6.4

hu IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
1470	1,250,000	2.9
368	361,000	3.1
91.9	98,000	2.4
23.0	25,400	2.3
5.74	6,740	6.1
1.44	1,830	3.8
0.359	634	3.9
0.00	230	12.0

hu IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
208	790,000	3.0
52.0	244,000	2.8
13.0	65,500	2.7
3.25	16,700	3.2
0.813	4,400	4.0
0.203	1,230	3.9
0.0508	416	6.4
0.00	138	22.0

hu IL-6 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
765	1,390,000	2.9
191	339,000	2.4
47.8	76,100	2.1
12.0	17,900	3.8
2.99	4,610	3.0
0.747	1,230	2.5
0.187	408	4.1
0.00	126	15.0

hu IL-8 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
569	665,000	3.4
142	172,000	1.9
35.6	43,300	2.0
8.89	11,000	2.7
2.22	3,010	2.3
0.556	887	2.4
0.139	362	3.8
0.00	187	11.0

hu IL-10 - Spot 7		
Conc. pg/mL	ECL Signal	%CV
367	701,000	3.1
91.8	210,000	2.0
22.9	55,700	1.6
5.73	14,200	1.7
1.43	3,790	2.6
0.358	1,110	3.2
0.0896	422	5.2
0.00	210	13.0

hu IL-12p70 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
528	417,000	5.0
132	129,000	3.2
33.0	34,900	2.7
8.25	9,050	4.8
2.06	2,500	2.6
0.516	813	4.1
0.129	359	12.0
0.00	238	12.0

hu IL-13 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
505	1,260,000	2.7
126	235,000	1.3
31.6	33,400	2.2
7.89	5,350	3.9
1.97	1,320	2.2
0.493	422	6.2
0.123	203	10.0
0.00	147	22.0

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hu TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
347	312,000	4.8
86.8	77,900	3.2
21.7	19,600	3.0
5.42	5,030	2.1
1.36	1,430	2.9
0.339	519	5.2
0.0847	276	9.7
0.00	197	18.0

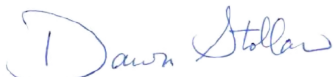
Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0047025	2-8°C	31 Jul 2021
Anti-hu IFN- γ Antibody	D0081180	2-8°C	31 Mar 2022
Anti-hu IL-1 β Antibody	D0081128	2-8°C	31 Jan 2022
Anti-hu IL-2 Antibody	D0081167	2-8°C	28 Feb 2022
Anti-hu IL-4 Antibody	D0081133	2-8°C	28 Feb 2022
Anti-hu IL-6 Antibody	D0081130	2-8°C	31 Jan 2022
Anti-hu IL-8 Antibody	D0081142	2-8°C	28 Feb 2022
Anti-hu IL-10 Antibody	D0081098	2-8°C	31 Jan 2022
Anti-hu IL-12p70 Antibody	D0081161	2-8°C	31 Mar 2022
Anti-hu IL-13 Antibody	D0081120	2-8°C	31 Jan 2022
Anti-hu TNF- α Antibody	D0081170	2-8°C	28 Feb 2022
Proinflammatory Panel 1 (human) Calibrator Blend	A0080187	2-8°C	31 Dec 2023
Diluent 2	M0020103	\leq -10°C	31 Mar 2021
Diluent 3	M0030087	\leq -10°C	30 Jun 2021
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	Dawn Stollar	Quality Assurance		07 MAR 2019