

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: K0081004
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	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	1450	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	589	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	1450	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	250	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	736	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	574	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	375	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	514	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	516	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	380	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
1450	275,000	1.5
363	73,900	1.7
90.6	18,700	2.1
22.7	4,960	2.6
5.66	1,570	2.6
1.42	771	4.3
0.354	546	4.9
0.00	472	5.9

hu IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
589	1,790,000	1.6
147	520,000	1.7
36.8	137,000	2.4
9.20	35,700	1.7
2.30	10,700	2.4
0.575	4,220	2.5
0.144	2,530	3.3
0.00	1,950	2.9

hu IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
1450	1,260,000	1.9
363	362,000	1.7
90.6	98,500	1.5
22.7	25,600	2.6
5.66	7,210	2.3
1.42	2,430	3.4
0.354	1,200	3.4
0.00	793	4.9

hu IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
250	1,000,000	3.4
62.5	303,000	3.5
15.6	81,300	3.7
3.91	21,000	4.7
0.977	5,220	3.0
0.244	1,550	3.5
0.0610	537	5.8
0.00	223	9.9

hu IL-6 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
736	1,310,000	3.7
184	310,000	2.6
46.0	65,200	3.1
11.5	15,000	3.0
2.88	3,810	1.7
0.719	1,100	3.3
0.180	417	5.2
0.00	193	8.0

hu IL-8 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
574	1,060,000	2.1
144	267,000	1.4
35.9	66,600	1.7
8.97	16,300	2.1
2.24	4,490	2.0
0.561	1,390	2.9
0.140	606	5.0
0.00	333	6.4

hu IL-10 - Spot 7		
Conc. pg/mL	ECL Signal	%CV
375	655,000	1.6
93.8	195,000	1.5
23.4	50,900	1.7
5.86	13,100	2.2
1.46	3,730	2.1
0.366	1,310	3.1
0.0916	668	5.7
0.00	456	5.5

hu IL-12p70 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
514	418,000	5.6
129	123,000	4.4
32.1	32,500	6.5
8.03	8,690	4.0
2.01	2,460	4.7
0.502	988	7.9
0.125	527	8.0
0.00	429	12.0

hu IL-13 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
516	1,150,000	2.3
129	194,000	2.1
32.3	24,900	2.7
8.06	3,760	4.0
2.02	1,060	3.3
0.504	440	7.1
0.126	288	8.1
0.00	247	9.7

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hu TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
380	417,000	1.5
95.0	103,000	3.0
23.8	25,700	2.0
5.94	6,610	6.2
1.48	1,970	2.5
0.371	769	4.7
0.0928	482	6.6
0.00	386	10.0

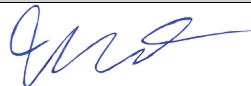
Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0046727	2-8°C	30 Jun 2020
Anti-hu IFN- γ Antibody	D0081014	2-8°C	31 Jan 2020
Anti-hu IL-1 β Antibody	D0081082	2-8°C	30 Sep 2021
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	D0081018	2-8°C	31 Jan 2020
Anti-hu IL-8 Antibody	D0081037	2-8°C	29 Feb 2020
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	D0081020	2-8°C	31 Jan 2020
Proinflammatory Panel 1 (human) Calibrator Blend	A0080151	2-8°C	30 Sep 2022
Diluent 2	M0020098	$\leq$ -10°C	28 Feb 2020
Diluent 3	M0030080	$\leq$ -10°C	31 May 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

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