

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: K0081041
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	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	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	247,000	2.1
363	66,300	2.1
90.6	16,600	2.3
22.7	4,340	1.9
5.66	1,360	3.6
1.42	660	4.1
0.354	464	6.6
0.00	422	4.3

hu IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
589	1,760,000	2.9
147	501,000	1.8
36.8	131,000	1.7
9.20	33,400	2.1
2.30	9,470	2.5
0.575	3,450	2.4
0.144	1,940	3.1
0.00	1,410	4.3

hu IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
1450	1,330,000	3.5
363	381,000	2.4
90.6	100,000	3.2
22.7	25,200	2.5
5.66	6,920	3.5
1.42	2,090	3.4
0.354	894	4.2
0.00	481	5.8

hu IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
250	985,000	3.7
62.5	304,000	3.2
15.6	81,600	2.9
3.91	20,700	4.8
0.977	4,980	3.3
0.244	1,430	3.6
0.0610	491	11.0
0.00	170	15.0

hu IL-6 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
736	1,490,000	1.9
184	350,000	2.3
46.0	74,800	1.7
11.5	17,000	3.3
2.88	4,180	2.1
0.719	1,170	2.2
0.180	428	9.8
0.00	170	7.4

hu IL-8 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
574	1,100,000	1.7
144	272,000	2.0
35.9	65,900	1.8
8.97	15,900	2.6
2.24	4,310	2.1
0.561	1,250	3.9
0.140	494	5.7
0.00	249	6.7

hu IL-10 - Spot 7		
Conc. pg/mL	ECL Signal	%CV
375	690,000	3.0
93.8	202,000	2.3
23.4	52,400	2.6
5.86	13,100	3.4
1.46	3,640	3.0
0.366	1,200	2.8
0.0916	588	6.6
0.00	363	11.0

hu IL-12p70 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
514	429,000	3.9
129	129,000	3.2
32.1	33,700	3.9
8.03	8,640	3.0
2.01	2,280	5.0
0.502	827	5.3
0.125	442	19.0
0.00	321	15.0

hu IL-13 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
516	1,270,000	2.0
129	212,000	2.9
32.3	26,700	2.5
8.06	4,080	2.8
2.02	1,110	2.9
0.504	407	7.5
0.126	235	14.0
0.00	175	18.0

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hu TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
380	411,000	2.7
95.0	100,000	3.6
23.8	24,900	2.4
5.94	6,120	2.9
1.48	1,840	3.2
0.371	679	5.0
0.0928	393	9.0
0.00	295	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	M0030081	\leq -10°C	30 Sep 2020
MSD Read Buffer T	Not Kit Specific	Not Kit Specific	N/A

Additional Components Included in V-PLEX Plus	
MSD Wash Buffer (20X), 100 mL	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>	18 JUL 2018