

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: K0080932

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	682	pg/mL
		Proinflammatory Panel 1 (human) Control 2	183	pg/mL
		Proinflammatory Panel 1 (human) Control 3	52.3	pg/mL
2	hu IL-1 β	Calibrator	589	pg/mL
		Proinflammatory Panel 1 (human) Control 1	215	pg/mL
		Proinflammatory Panel 1 (human) Control 2	52	pg/mL
		Proinflammatory Panel 1 (human) Control 3	11	pg/mL
3	hu IL-2	Calibrator	1450	pg/mL
		Proinflammatory Panel 1 (human) Control 1	431	pg/mL
		Proinflammatory Panel 1 (human) Control 2	42.3	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.83	pg/mL
4	hu IL-4	Calibrator	250	pg/mL
		Proinflammatory Panel 1 (human) Control 1	101	pg/mL
		Proinflammatory Panel 1 (human) Control 2	20.3	pg/mL
		Proinflammatory Panel 1 (human) Control 3	2.88	pg/mL
5	hu IL-6	Calibrator	736	pg/mL
		Proinflammatory Panel 1 (human) Control 1	275	pg/mL
		Proinflammatory Panel 1 (human) Control 2	50.7	pg/mL
		Proinflammatory Panel 1 (human) Control 3	9.03	pg/mL
6	hu IL-8	Calibrator	574	pg/mL
		Proinflammatory Panel 1 (human) Control 1	223	pg/mL
		Proinflammatory Panel 1 (human) Control 2	40.4	pg/mL
		Proinflammatory Panel 1 (human) Control 3	5.91	pg/mL
7	hu IL-10	Calibrator	375	pg/mL
		Proinflammatory Panel 1 (human) Control 1	133	pg/mL
		Proinflammatory Panel 1 (human) Control 2	27.8	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.61	pg/mL
8	hu IL-12p70	Calibrator	514	pg/mL
		Proinflammatory Panel 1 (human) Control 1	168	pg/mL
		Proinflammatory Panel 1 (human) Control 2	33.2	pg/mL
		Proinflammatory Panel 1 (human) Control 3	6.12	pg/mL
9	hu IL-13	Calibrator	516	pg/mL
		Proinflammatory Panel 1 (human) Control 1	150	pg/mL
		Proinflammatory Panel 1 (human) Control 2	46.7	pg/mL
		Proinflammatory Panel 1 (human) Control 3	12.3	pg/mL
10	hu TNF- α	Calibrator	380	pg/mL
		Proinflammatory Panel 1 (human) Control 1	89.6	pg/mL
		Proinflammatory Panel 1 (human) Control 2	18	pg/mL
		Proinflammatory Panel 1 (human) Control 3	2.72	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	1.4
363	63,600	2.2
90.6	16,900	3.5
22.7	4,570	3.9
5.66	1,510	2.2
1.42	680	5.1
0.354	470	6.5
0.00	401	5.7

hu IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
589	2,090,000	2.4
147	573,000	1.8
36.8	159,000	2.3
9.20	42,300	2.3
2.30	12,500	2.1
0.575	4,310	1.9
0.144	2,310	3.8
0.00	1,720	5.4

hu IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
1450	1,240,000	1.8
363	346,000	2.0
90.6	98,300	1.7
22.7	26,000	2.5
5.66	7,460	2.4
1.42	2,220	2.6
0.354	969	4.7
0.00	545	4.4

hu IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
250	1,010,000	3.1
62.5	292,000	3.6
15.6	83,100	3.7
3.91	22,000	4.1
0.977	5,810	4.7
0.244	1,550	4.3
0.0610	501	5.6
0.00	155	19.0

hu IL-6 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
736	1,330,000	4.2
184	303,000	3.1
46.0	71,000	2.8
11.5	17,000	3.4
2.88	4,680	2.2
0.719	1,260	2.1
0.180	461	3.6
0.00	198	9.3

hu IL-8 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
574	1,070,000	1.6
144	265,000	1.4
35.9	68,600	2.2
8.97	17,600	2.4
2.24	4,960	2.0
0.561	1,390	3.0
0.140	551	4.7
0.00	255	10.0

hu IL-10 - Spot 7		
Conc. pg/mL	ECL Signal	%CV
375	627,000	2.0
93.8	179,000	1.7
23.4	49,300	2.1
5.86	12,900	2.8
1.46	3,720	2.2
0.366	1,160	3.1
0.0916	528	5.0
0.00	314	7.2

hu IL-12p70 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
514	494,000	5.3
129	142,000	2.4
32.1	40,100	3.0
8.03	10,400	3.4
2.01	2,980	4.3
0.502	949	5.4
0.125	469	8.7
0.00	307	14.0

hu IL-13 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
516	1,010,000	2.9
129	159,000	1.8
32.3	21,200	2.9
8.06	3,310	3.7
2.02	955	3.7
0.504	339	8.7
0.126	211	12.0
0.00	159	16.0

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hu TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
380	417,000	3.2
95.0	97,000	2.6
23.8	24,900	1.9
5.94	6,320	3.8
1.48	1,920	2.5
0.371	651	5.1
0.0928	356	11.0
0.00	239	17.0

Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0046712	2-8°C	30 Jun 2020
Anti-hu IFN- γ Antibody	D0081014	2-8°C	31 Jan 2020
Anti-hu IL-1 β Antibody	D0080915	2-8°C	31 Jul 2019
Anti-hu IL-2 Antibody	D0080982	2-8°C	31 Oct 2019
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	D0081037	2-8°C	29 Feb 2020
Anti-hu IL-10 Antibody	D0081007	2-8°C	30 Nov 2019
Anti-hu IL-12p70 Antibody	D0080921	2-8°C	31 Jul 2019
Anti-hu IL-13 Antibody	D0081059	2-8°C	30 Apr 2020
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	$\leq -10^{\circ}\text{C}$	28 Feb 2020
Diluent 3	M0030080	$\leq -10^{\circ}\text{C}$	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), 1000mL	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		04 APR 2018