

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: K0081097
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%

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	1250	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	574	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	1380	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	223	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	726	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	555	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	372	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	540	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	535	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	357	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
1250	171,000	2.4
313	44,800	2.1
78.1	11,300	4.1
19.5	2,930	4.4
4.88	933	2.4
1.22	432	5.5
0.305	304	4.5
0.00	262	9.1

hu IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
574	1,200,000	2.2
144	335,000	1.8
35.9	84,400	2.5
8.97	21,600	1.4
2.24	6,200	8.1
0.561	2,030	1.8
0.140	1,060	4.0
0.00	733	3.7

hu IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
1380	1,040,000	2.7
345	299,000	2.0
86.3	77,700	2.2
21.6	19,800	3.1
5.39	5,350	5.5
1.35	1,560	4.0
0.337	652	5.6
0.00	360	9.3

hu IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
223	728,000	5.6
55.8	230,000	2.8
13.9	61,000	3.5
3.48	15,900	3.1
0.871	3,970	4.1
0.218	1,150	2.6
0.0544	397	5.5
0.00	171	14.0

hu IL-6 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
726	1,090,000	2.8
182	267,000	1.9
45.4	58,600	1.6
11.3	13,900	2.9
2.84	3,500	2.3
0.709	1,000	3.3
0.177	381	4.5
0.00	175	11.0

hu IL-8 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
555	601,000	2.3
139	155,000	1.5
34.7	38,800	2.2
8.67	9,790	2.8
2.17	2,590	1.8
0.542	795	1.4
0.135	347	4.6
0.00	197	9.7

hu IL-10 - Spot 7		
Conc. pg/mL	ECL Signal	%CV
372	544,000	1.7
93.0	161,000	1.4
23.3	41,500	2.6
5.81	10,600	3.0
1.45	2,820	2.2
0.363	915	2.1
0.0908	424	6.2
0.00	263	6.7

hu IL-12p70 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
540	418,000	5.3
135	124,000	6.7
33.8	32,700	5.4
8.44	8,520	5.5
2.11	2,240	4.9
0.527	763	3.7
0.132	386	12.0
0.00	264	17.0

hu IL-13 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
535	1,040,000	3.8
134	195,000	2.6
33.4	26,800	3.2
8.36	4,180	5.1
2.09	1,050	4.7
0.522	359	7.5
0.131	191	9.6
0.00	146	14.0

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hu TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
357	308,000	4.0
89.3	75,400	4.1
22.3	18,800	4.4
5.58	4,630	6.1
1.39	1,440	3.6
0.349	566	5.6
0.0872	351	8.3
0.00	283	9.7


Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0046923	2-8°C	31 Mar 2021
Anti-hu IFN- γ Antibody	D0081132	2-8°C	28 Feb 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	D0081126	2-8°C	31 Jan 2022
Anti-hu IL-6 Antibody	D0081160	2-8°C	30 Apr 2022
Anti-hu IL-8 Antibody	D0081142	2-8°C	28 Feb 2022
Anti-hu IL-10 Antibody	D0081024	2-8°C	31 Jan 2020
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	D0081065	2-8°C	30 Jun 2020
Proinflammatory Panel 1 (human) Calibrator Blend	A0080180	2-8°C	30 Sep 2023
Diluent 2	M0020103	$\leq -10^{\circ}\text{C}$	31 Mar 2021
Diluent 3	M0030085	$\leq -10^{\circ}\text{C}$	28 Feb 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		03 DEC 2018