

CERTIFICATE OF ANALYSIS

Page 1 of 4

Product Description: V-Plex® and V-Plex Plus Proinflammatory Panel 1 (human) Kit
Kit Catalog Numbers: K15049-Series; K151QR-Series; K151OD-Series; K15056-Series; K15052-Series; K15053-Series
Kit Lot Number: K0081254
Expiration Date: 30 Jun 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	IFN- γ	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
2	IL-1 β	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
3	IL-2	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
4	IL-4	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
5	IL-6	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
6	IL-8	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
7	IL-10	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
8	IL-12p70	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
9	IL-13	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
10	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	IFN- γ	1.76	80% - 120%	< 20%	938	80% - 120%	< 20%
2	IL-1 β	0.646	80% - 120%	< 20%	375	80% - 120%	< 20%
3	IL-2	0.890	80% - 120%	< 20%	938	80% - 120%	< 20%
4	IL-4	0.218	80% - 120%	< 20%	158	80% - 120%	< 20%
5	IL-6	0.633	80% - 120%	< 20%	488	80% - 120%	< 20%
6	IL-8	0.591	80% - 120%	< 20%	375	80% - 120%	< 20%
7	IL-10	0.298	80% - 120%	< 20%	233	80% - 120%	< 20%
8	IL-12p70	1.22	80% - 120%	< 20%	315	80% - 120%	< 20%
9	IL-13	4.21	80% - 120%	< 20%	353	80% - 120%	< 20%
10	TNF- α	0.690	80% - 120%	< 20%	248	80% - 120%	< 20%

Acceptance Data/ Non Specific Binding Specifications:

Spot	Name	NSB Spec
1	IFN- γ	< 1.0%
2	IL-1 β	< 1.0%
3	IL-2	< 1.0%
4	IL-4	< 1.0%
5	IL-6	< 1.0%
6	IL-8	< 1.0%
7	IL-10	< 1.0%
8	IL-12p70	< 1.0%
9	IL-13	< 1.0%
10	TNF- α	< 1.0%

CERTIFICATE OF ANALYSIS

Page 2 of 4

Stock Concentration of Material Tested:

Spot	Name	Item	Conc	Units
1	IFN- γ	Calibrator	1600	pg/mL
		Proinflammatory Panel 1 (human) Control 1	544	pg/mL
		Proinflammatory Panel 1 (human) Control 2	146	pg/mL
		Proinflammatory Panel 1 (human) Control 3	37.8	pg/mL
2	IL-1 β	Calibrator	552	pg/mL
		Proinflammatory Panel 1 (human) Control 1	218	pg/mL
		Proinflammatory Panel 1 (human) Control 2	51.8	pg/mL
		Proinflammatory Panel 1 (human) Control 3	11.9	pg/mL
3	IL-2	Calibrator	1460	pg/mL
		Proinflammatory Panel 1 (human) Control 1	419	pg/mL
		Proinflammatory Panel 1 (human) Control 2	39.6	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.66	pg/mL
4	IL-4	Calibrator	260	pg/mL
		Proinflammatory Panel 1 (human) Control 1	109	pg/mL
		Proinflammatory Panel 1 (human) Control 2	21.8	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.4	pg/mL
5	IL-6	Calibrator	743	pg/mL
		Proinflammatory Panel 1 (human) Control 1	273	pg/mL
		Proinflammatory Panel 1 (human) Control 2	48.4	pg/mL
		Proinflammatory Panel 1 (human) Control 3	8.11	pg/mL
6	IL-8	Calibrator	554	pg/mL
		Proinflammatory Panel 1 (human) Control 1	224	pg/mL
		Proinflammatory Panel 1 (human) Control 2	33.8	pg/mL
		Proinflammatory Panel 1 (human) Control 3	6.31	pg/mL
7	IL-10	Calibrator	365	pg/mL
		Proinflammatory Panel 1 (human) Control 1	136	pg/mL
		Proinflammatory Panel 1 (human) Control 2	25.3	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.81	pg/mL
8	IL-12p70	Calibrator	552	pg/mL
		Proinflammatory Panel 1 (human) Control 1	195	pg/mL
		Proinflammatory Panel 1 (human) Control 2	38.3	pg/mL
		Proinflammatory Panel 1 (human) Control 3	7.56	pg/mL
9	IL-13	Calibrator	472	pg/mL
		Proinflammatory Panel 1 (human) Control 1	172	pg/mL
		Proinflammatory Panel 1 (human) Control 2	47.3	pg/mL
		Proinflammatory Panel 1 (human) Control 3	12.6	pg/mL
10	TNF- α	Calibrator	332	pg/mL
		Proinflammatory Panel 1 (human) Control 1	92.5	pg/mL
		Proinflammatory Panel 1 (human) Control 2	16.5	pg/mL
		Proinflammatory Panel 1 (human) Control 3	2.13	pg/mL

Controls tested may not be the same lot as shipped.

CERTIFICATE OF ANALYSIS

Standard Curve Data:

IFN- γ - Spot 1		
Conc. pg/mL	ECL Signal	%CV
1600	378,000	1.2
400	106,000	1.2
100	26,800	2.7
25.0	7,040	2.2
6.25	2,010	3.4
1.56	791	5.4
0.391	456	6.0
0.00	367	17.0

IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
552	1,330,000	1.5
138	368,000	2.3
34.5	94,500	2.5
8.63	24,300	3.7
2.16	6,670	2.5
0.539	2,180	2.7
0.135	1,040	4.5
0.00	647	3.4

IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
1460	1,210,000	3.7
365	348,000	3.6
91.3	92,300	2.5
22.8	23,800	4.8
5.70	6,620	5.5
1.43	1,890	4.2
0.356	765	4.3
0.00	383	6.0

IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
260	793,000	4.5
65.0	239,000	3.4
16.3	63,400	3.3
4.06	16,600	3.5
1.02	4,400	4.9
0.254	1,320	5.1
0.0635	545	16.0
0.00	327	18.0

IL-6 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
743	1,160,000	3.3
186	272,000	1.4
46.4	59,400	3.0
11.6	14,000	3.7
2.90	3,720	2.9
0.726	1,140	3.1
0.181	481	6.3
0.00	271	4.7

IL-8 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
554	735,000	2.1
139	196,000	3.1
34.6	48,800	2.3
8.66	12,600	4.7
2.16	3,440	2.4
0.541	1,100	3.4
0.135	491	4.7
0.00	284	7.5

IL-10 - Spot 7		
Conc. pg/mL	ECL Signal	%CV
365	678,000	1.8
91.3	202,000	3.0
22.8	53,400	2.8
5.70	13,800	5.5
1.43	3,780	1.8
0.356	1,220	2.0
0.0891	559	5.0
0.00	347	7.5

IL-12p70 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
552	394,000	4.7
138	119,000	2.8
34.5	31,700	1.9
8.63	8,410	4.2
2.16	2,460	5.7
0.539	961	6.5
0.135	666	20.0
0.00	619	38.0

IL-13 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
472	982,000	3.6
118	171,000	2.5
29.5	21,700	3.1
7.38	3,400	3.1
1.84	879	3.3
0.461	341	7.0
0.115	211	12.0
0.00	182	20.0

CERTIFICATE OF ANALYSIS

TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
332	281,000	3.1
83.0	69,900	3.1
20.8	17,300	4.2
5.19	4,550	4.7
1.30	1,460	2.7
0.324	643	3.3
0.0811	462	5.5
0.00	385	4.8


Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0047100	2-8°C	31 Oct 2021
Anti-hu IFN- γ Antibody	D0081254	2-8°C	31 Jul 2022
Anti-hu IL-1 β Antibody	D0081274	2-8°C	31 Aug 2022
Anti-hu IL-2 Antibody	D0081209	2-8°C	31 May 2022
Anti-hu IL-4 Antibody	D0081126	2-8°C	31 Jan 2022
Anti-hu IL-6 Antibody	D0081210	2-8°C	30 Apr 2022
Anti-hu IL-8 Antibody	D0081255	2-8°C	31 Jul 2022
Anti-hu IL-10 Antibody	D0081211	2-8°C	31 May 2022
Anti-hu IL-12p70 Antibody	D0081212	2-8°C	31 May 2022
Anti-hu IL-13 Antibody	D0081169	2-8°C	30 Apr 2022
Anti-hu TNF- α antibody	D0081228	2-8°C	31 May 2022
Proinflammatory Panel 1 (human) Calibrator Blend	A0080208	2-8°C	30 Apr 2024
Diluent 2	M0020104	$\leq -10^{\circ}\text{C}$	30 Jun 2021
Diluent 3	M0030089	$\leq -10^{\circ}\text{C}$	30 Sep 2021
MSD Read Buffer T	Not Kit Specific	Not Kit Specific	N/A

Additional Components Included in V-PLEX Plus	
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	Karen Hamilla	Quality		25 JUN 2019