

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, K15052-Series, K15053-Series

Kit Lot Number: K0080829

Expiration Date: 30 Apr 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%

CERTIFICATE OF ANALYSIS

Page 2 of 4

Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	hu IFN- γ	Calibrator	1460	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	573	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	1490	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	260	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	743	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	577	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	366	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	475	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	499	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	368	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.

CERTIFICATE OF ANALYSIS

Page 3 of 4

Standard Curve Data:

hu IFN- γ - Spot 1			hu IL-1 β - Spot 2			hu IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV
1460	368,000	2.2	573	1,380,000	3.8	1490	1,110,000	2.7
365	102,000	2.6	143	377,000	2.4	373	323,000	2.1
91.3	26,300	1.2	35.8	97,300	2.4	93.1	86,900	2.5
22.8	6,740	1.6	8.95	24,500	2.6	23.3	21,900	2.4
5.70	1,940	3.4	2.24	6,810	2.0	5.82	6,160	2.3
1.43	743	5.8	0.560	2,180	1.8	1.46	1,800	2.3
0.356	411	5.9	0.140	1,020	8.7	0.364	723	4.3
0.00	359	12.0	0.00	613	12.0	0.00	362	13.0

hu IL-4 - Spot 4			hu IL-6 - Spot 5			hu IL-8 - Spot 6		
Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV
260	928,000	2.8	743	1,290,000	2.6	577	585,000	1.8
65.0	285,000	3.9	186	311,000	2.7	144	160,000	2.7
16.3	78,100	4.3	46.4	69,200	1.9	36.1	39,300	2.2
4.06	20,300	2.8	11.6	15,900	3.2	9.02	9,760	3.7
1.02	5,260	3.4	2.90	4,200	2.6	2.25	2,800	3.2
0.254	1,490	3.8	0.726	1,160	2.6	0.563	878	3.7
0.0635	532	6.2	0.181	419	4.4	0.141	390	5.6
0.00	215	24.0	0.00	207	19.0	0.00	255	19.0

hu IL-10 - Spot 7			hu IL-12p70 - Spot 8			hu IL-13 - Spot 9		
Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV
366	661,000	1.5	475	421,000	2.1	499	1,100,000	2.3
91.5	196,000	1.7	119	127,000	3.0	125	202,000	4.0
22.9	51,500	1.9	29.7	33,400	3.1	31.2	26,600	3.7
5.72	13,000	2.6	7.42	8,680	2.3	7.80	4,020	3.4
1.43	3,700	2.5	1.86	2,480	4.0	1.95	1,030	3.8
0.357	1,160	3.8	0.464	837	6.4	0.487	397	8.3
0.0894	514	6.9	0.116	434	11.0	0.122	226	16.0
0.00	318	18.0	0.00	398	28.0	0.00	218	23.0

CERTIFICATE OF ANALYSIS

Page 4 of 4

hu TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
368	328,000	3.0
92.0	81,500	2.7
23.0	20,400	2.4
5.75	5,210	3.4
1.44	1,710	3.6
0.359	686	6.9
0.0898	443	11.0
0.00	365	15.0

Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0046540	2-8°C	30 Nov 2019
Anti-hu IFN- γ Antibody	D0080914	2-8°C	31 Jul 2019
Anti-hu IL-1 β Antibody	D0080915	2-8°C	31 Jul 2019
Anti-hu IL-2 Antibody	D0080916	2-8°C	31 Aug 2019
Anti-hu IL-4 Antibody	D0080917	2-8°C	31 Jul 2019
Anti-hu IL-6 Antibody	D0080918	2-8°C	31 Jul 2019
Anti-hu IL-8 Antibody	D0080749	2-8°C	31 May 2019
Anti-hu IL-10 Antibody	D0080920	2-8°C	31 Jul 2019
Anti-hu IL-12p70 Antibody	D0080921	2-8°C	31 Jul 2019
Anti-hu IL-13 Antibody	D0080764	2-8°C	30 Apr 2019
Anti-hu TNF- α Antibody	D0080923	2-8°C	31 Jul 2019
Proinflammatory Panel 1 (human) Calibrator Blend	A0080133	2-8°C	30 Apr 2022
Diluent 2	M0020096	$\leq -10^{\circ}\text{C}$	30 Nov 2019
Diluent 3	M0030077	$\leq -10^{\circ}\text{C}$	30 Nov 2019
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	Dawn Stollar	Quality Assurance	<i>Dawn Stollar</i>	01 AUG 2017