



CERTIFICATE OF ANALYSIS

Page 1 of 4

Product Description: V-PLEX® and V-PLEX Plus Proinflammatory Panel 1 (mouse) Kit

Kit Catalog Numbers: K15048-Series

Kit Lot Number: K0080655

Expiration Date: 28 Feb 2019

Acceptance Data/ Percent Recovery Specifications:

Spot	Name	Calibrator		Proinflammatory Panel 1 (mouse) Control 1		Proinflammatory Panel 1 (mouse) Control 2		Proinflammatory Panel 1 (mouse) Control 3	
		Recovery	CV	Recovery	CV	Recovery	CV	Recovery	CV
1	ms IFN- γ	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
2	ms IL-1 β	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
3	ms IL-2	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
4	ms IL-4	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
5	ms IL-5	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
6	ms IL-6	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
7	ms KC/GRO	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
8	ms IL-10	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
9	ms IL-12p70	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
10	ms TNF- α	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%

Spot	Name	LLOQ			ULOQ		
		Value	Recovery	CV	Value	Recovery	CV
1	ms IFN- γ	0.390	75% - 125%	< 25%	570	75% - 125%	< 25%
2	ms IL-1 β	0.720	75% - 125%	< 25%	1030	75% - 125%	< 25%
3	ms IL-2	1.03	75% - 125%	< 25%	1570	75% - 125%	< 25%
4	ms IL-4	2.58	75% - 125%	< 25%	1060	75% - 125%	< 25%
5	ms IL-5	1.60	75% - 125%	< 25%	590	75% - 125%	< 25%
6	ms IL-6	7.61	75% - 125%	< 25%	3140	75% - 125%	< 25%
7	ms KC/GRO	3.29	75% - 125%	< 25%	1230	75% - 125%	< 25%
8	ms IL-10	19.8	75% - 125%	< 25%	2030	75% - 125%	< 25%
9	ms IL-12p70	179	75% - 125%	< 25%	20600	75% - 125%	< 25%
10	ms TNF- α	0.980	75% - 125%	< 25%	403	75% - 125%	< 25%

Acceptance Data/ Non Specific Binding Specifications:

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

CERTIFICATE OF ANALYSIS

Page 2 of 4

Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	ms IFN- γ	Calibrator	933	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	479	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	25.7	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	1.53	pg/mL
2	ms IL-1 β	Calibrator	1720	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	623	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	50.3	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	4.41	pg/mL
3	ms IL-2	Calibrator	2720	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	933	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	68.5	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	7.66	pg/mL
4	ms IL-4	Calibrator	1700	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	505	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	75.1	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	16.9	pg/mL
5	ms IL-5	Calibrator	961	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	381	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	54.7	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	9.53	pg/mL
6	ms IL-6	Calibrator	5500	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	1740	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	240	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	38	pg/mL
7	ms KC/GRO	Calibrator	1920	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	902	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	111	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	16.2	pg/mL
8	ms IL-10	Calibrator	3070	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	1140	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	289	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	113	pg/mL
9	ms IL-12p70	Calibrator	31500	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	13100	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	3540	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	1120	pg/mL
10	ms TNF- α	Calibrator	653	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	172	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	27.4	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	4.25	pg/mL

Controls tested may not be the same lot as shipped.

CERTIFICATE OF ANALYSIS

Standard Curve Data:

ms IFN- γ - Spot 1		
Conc. pg/mL	ECL Signal	%CV
933	1,140,000	3.4
233	331,000	2.9
58.3	83,500	2.0
14.6	20,600	1.3
3.64	4,980	3.7
0.911	1,370	3.0
0.228	425	4.9
0.00	104	23.0

ms IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
1720	603,000	4.0
430	174,000	4.2
108	47,300	3.5
26.9	11,900	4.6
6.72	3,040	4.4
1.68	884	4.0
0.420	334	6.8
0.00	134	10.0

ms IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
2720	828,000	4.1
680	228,000	3.9
170	50,800	4.2
42.5	11,300	5.4
10.6	2,800	5.1
2.66	831	5.7
0.664	327	8.2
0.00	142	17.0

ms IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
1700	1,000,000	3.0
425	297,000	2.3
106	79,900	2.0
26.6	20,400	2.1
6.64	5,150	2.8
1.66	1,510	2.9
0.415	563	4.4
0.00	236	12.0

ms IL-5 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
961	1,410,000	1.7
240	340,000	1.7
60.1	80,200	2.0
15.0	19,200	2.3
3.75	4,910	1.8
0.938	1,320	2.8
0.235	439	4.7
0.00	122	21.0

ms IL-6 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
5500	657,000	2.7
1380	149,000	2.4
344	34,900	2.6
85.9	8,320	3.1
21.5	2,430	2.3
5.37	789	4.3
1.34	369	7.9
0.00	214	13.0

ms KC/GRO - Spot 7		
Conc. pg/mL	ECL Signal	%CV
1920	1,050,000	3.9
480	234,000	3.6
120	48,200	5.2
30.0	10,500	3.2
7.50	2,760	4.0
1.88	786	4.6
0.469	327	13.0
0.00	219	38.0

ms IL-10 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
3070	548,000	7.4
768	124,000	6.1
192	31,500	5.6
48.0	7,770	9.2
12.0	2,290	5.6
3.00	862	6.2
0.750	499	6.5
0.00	437	11.0

ms IL-12p70 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
31500	702,000	2.0
7880	146,000	3.6
1970	26,700	3.0
492	5,170	3.1
123	1,380	5.3
30.8	478	7.7
7.69	261	17.0
0.00	209	30.0

CERTIFICATE OF ANALYSIS

Page 4 of 4

ms TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
653	699,000	1.4
163	160,000	2.6
40.8	37,700	2.7
10.2	8,960	3.1
2.55	2,690	3.1
0.638	977	4.3
0.159	580	11.0
0.00	476	13.0


Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (mouse) Plate	Z0046293	2-8°C	30 Apr 2019
Anti-ms IFN- γ Antibody	D0080851	2-8°C	31 May 2019
Anti-ms IL-1 β Antibody	D0080852	2-8°C	31 May 2019
Anti-ms IL-2 Antibody	D0080786	2-8°C	31 Mar 2019
Anti-ms IL-4 Antibody	D0080854	2-8°C	31 May 2019
Anti-ms IL-5 Antibody	D0080855	2-8°C	31 May 2019
Anti-ms IL-6 Antibody	D0080856	2-8°C	31 May 2019
Anti-ms KC/GRO Antibody	D0080857	2-8°C	31 May 2019
Anti-ms IL-10 Antibody	D0080858	2-8°C	31 May 2019
Anti-ms IL-12p70 Antibody	D0080859	2-8°C	31 May 2019
Anti-ms TNF- α Antibody	D0080787	2-8°C	31 Mar 2019
Proinflammatory Panel 1 (mouse) Calibrator Blend	A0080110	2-8°C	31 Dec 2021
Diluent 41	M0410015	\leq -10°C	30 Jun 2019
Diluent 45	M0450012	\leq -10°C	28 Feb 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 (mouse) Control 1	Not Kit Specific
Proinflammatory Panel 1 (mouse) Control 2	Not Kit Specific
Proinflammatory Panel 1 (mouse) 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 JAN 2017