



CERTIFICATE OF ANALYSIS

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Product Description: V-PLEX® and V-PLEX Plus Proinflammatory Panel 1 (mouse) Kit
Kit Catalog Numbers: K15048-Series
Kit Lot Number: K0080686
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%
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%
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%



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Acceptance Data/ Non Specific Binding Specifications:

Spot	Name	NSB Spec
1	ms IFN- γ	< 1.0%
2	ms IL-1 β	< 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%

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
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



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7	ms KC/GRO	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.

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Standard Curve Data:

ms IFN- γ - Spot 1		
Conc. pg/mL	ECL Signal	%CV
933	1,040,000	3.3
233	308,000	3.1
58.3	79,000	2.2
14.6	19,600	2.6
3.64	4,910	2.8
0.911	1,310	4.3
0.228	410	7.2
0.00	102	19.0

ms IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
1720	529,000	5.5
430	150,000	6.4
108	40,100	6.0
26.9	9,890	9.3
6.72	2,590	6.8
1.68	757	6.5
0.420	281	8.1
0.00	118	18.0

ms IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
1700	923,000	2.9
425	275,000	3.2
106	71,700	2.0
26.6	18,600	2.2
6.64	4,710	3.8
1.66	1,370	3.4
0.415	495	6.8
0.00	213	6.4

ms IL-5 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
961	1,410,000	2.7
240	342,000	2.3
60.1	82,000	2.5
15.0	19,900	2.8
3.75	5,090	2.1
0.938	1,340	3.0
0.235	439	4.9
0.00	132	13.0

ms IL-6 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
5500	628,000	2.3
1380	141,000	1.9
344	33,400	1.5
85.9	7,890	3.3
21.5	2,290	2.0
5.37	700	4.5
1.34	321	6.2
0.00	190	7.5

ms KC/GRO - Spot 7		
Conc. pg/mL	ECL Signal	%CV
1920	977,000	3.2
480	208,000	3.3
120	40,500	4.8
30.0	8,810	4.5
7.50	2,350	3.3
1.88	682	5.3
0.469	276	7.8
0.00	150	12.0

ms IL-10 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
3070	496,000	7.0
768	107,000	4.8
192	27,500	4.9
48.0	6,550	5.8
12.0	2,010	5.6
3.00	808	4.3
0.750	501	6.2
0.00	462	6.6

ms IL-12p70 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
31500	510,000	5.2
7880	94,000	5.3
1970	15,700	3.6
492	2,930	5.0
123	880	7.1
30.8	308	10.0
7.69	196	12.0
0.00	149	20.0

ms TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
653	700,000	2.0
163	160,000	2.4
40.8	37,100	3.0
10.2	8,990	3.6
2.55	2,730	3.9
0.638	917	3.7
0.159	589	11.0
0.00	393	14.0



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Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (mouse) Plate	Z0046341	2-8°C	30 Jun 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-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	$\leq -10^{\circ}\text{C}$	30 Jun 2019
Diluent 45	M0450012	$\leq -10^{\circ}\text{C}$	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		23 FEB 2017