

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: K0080914

Expiration Date: 31 Aug 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%

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Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	ms IFN- γ	Calibrator	644	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	282	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	21.5	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	1.76	pg/mL
2	ms IL-1 β	Calibrator	1510	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	663	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	47.9	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	4.18	pg/mL
3	ms IL-2	Calibrator	2980	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	951	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	66.7	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	5.33	pg/mL
4	ms IL-4	Calibrator	1670	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	437	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	59.9	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	12.1	pg/mL
5	ms IL-5	Calibrator	947	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	322	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	49	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	8.74	pg/mL
6	ms IL-6	Calibrator	4990	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	1680	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	244	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	37.5	pg/mL
7	ms KC/GRO	Calibrator	1870	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	661	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	108	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	17.1	pg/mL
8	ms IL-10	Calibrator	3530	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	1030	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	314	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	94.9	pg/mL
9	ms IL-12p70	Calibrator	30400	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	13800	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	3930	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	1080	pg/mL
10	ms TNF- α	Calibrator	662	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	152	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	29.1	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	5.1	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
644	948,000	2.2
161	276,000	2.2
40.3	67,000	3.4
10.1	17,700	3.0
2.52	4,330	2.4
0.629	1,220	3.1
0.157	408	7.1
0.00	148	31.0

ms IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
1510	461,000	4.1
378	130,000	3.3
94.4	33,300	4.1
23.6	8,260	4.4
5.90	2,210	4.6
1.47	636	4.5
0.369	249	8.8
0.00	117	24.0

ms IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
2980	893,000	3.2
745	249,000	3.5
186	56,100	3.7
46.6	12,900	4.2
11.6	3,290	4.2
2.91	934	5.3
0.728	346	9.5
0.00	149	13.0

ms IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
1670	1,060,000	2.7
418	307,000	3.0
104	80,600	3.9
26.1	21,500	3.8
6.52	5,390	3.6
1.63	1,610	3.8
0.408	584	5.5
0.00	290	17.0

ms IL-5 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
947	1,530,000	2.2
237	352,000	3.0
59.2	82,100	3.0
14.8	19,900	3.1
3.70	5,140	2.5
0.925	1,390	3.1
0.231	498	4.2
0.00	175	18.0

ms IL-6 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
4990	556,000	2.5
1250	121,000	2.2
312	28,200	2.4
78.0	7,010	2.1
19.5	1,960	2.8
4.87	645	4.5
1.22	334	6.3
0.00	223	11.0

ms KC/GRO - Spot 7		
Conc. pg/mL	ECL Signal	%CV
1870	1,420,000	3.4
468	321,000	3.9
117	65,900	3.5
29.2	14,300	3.6
7.30	3,590	4.1
1.83	972	3.6
0.457	352	7.4
0.00	133	19.0

ms IL-10 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
3530	827,000	5.0
883	200,000	4.4
221	47,800	4.2
55.2	12,400	3.9
13.8	3,340	6.5
3.45	1,230	8.8
0.862	664	14.0
0.00	596	24.0

ms IL-12p70 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
30400	658,000	4.7
7600	131,000	3.6
1900	22,400	3.9
475	4,470	3.8
119	1,190	4.3
29.7	384	6.3
7.42	198	8.1
0.00	148	22.0

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ms TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
662	685,000	2.6
166	155,000	3.1
41.4	36,500	2.6
10.3	8,860	3.2
2.59	2,420	2.5
0.646	762	4.3
0.162	371	5.1
0.00	234	11.0


Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (mouse) Plate	Z0046688	2-8°C	31 May 2020
Anti-ms IFN- γ Antibody	D0080960	2-8°C	31 Aug 2019
Anti-ms IL-1 β Antibody	D0080961	2-8°C	30 Apr 2020
Anti-ms IL-2 Antibody	D0080962	2-8°C	31 Dec 2019
Anti-ms IL-4 Antibody	D0080963	2-8°C	31 Oct 2019
Anti-ms IL-5 Antibody	D0081046	2-8°C	30 Apr 2020
Anti-ms IL-6 Antibody	D0080965	2-8°C	31 Oct 2019
Anti-ms KC/GRO Antibody	D0080966	2-8°C	30 Sep 2019
Anti-ms IL-10 Antibody	D0080967	2-8°C	31 Oct 2019
Anti-ms IL-12p70 Antibody	D0081047	2-8°C	31 May 2020
Anti-ms TNF- α Antibody	D0080969	2-8°C	30 Sep 2019
Proinflammatory Panel 1 (mouse) Calibrator Blend	A0080152	2-8°C	30 Nov 2022
Diluent 41	M0410020	$\leq -10^{\circ}\text{C}$	29 Feb 2020
Diluent 45	M0450020	$\leq -10^{\circ}\text{C}$	31 May 2020
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		08 MAR 2018