

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: K0080998
Expiration Date: 30 Sep 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	0.818	75% - 125%	< 25%	1060	75% - 125%	< 25%
5	ms IL-5	0.302	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	7.26	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	467	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	32.2	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	2.15	pg/mL
2	ms IL-1 β	Calibrator	1510	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	741	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	53.8	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	4.48	pg/mL
3	ms IL-2	Calibrator	2980	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	919	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	54.8	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	5.84	pg/mL
4	ms IL-4	Calibrator	1670	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	480	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	62	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	15.9	pg/mL
5	ms IL-5	Calibrator	947	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	368	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	55.5	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	8.58	pg/mL
6	ms IL-6	Calibrator	4990	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	1050	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	167	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	31.5	pg/mL
7	ms KC/GRO	Calibrator	1870	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	695	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	116	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	17.7	pg/mL
8	ms IL-10	Calibrator	3530	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	1160	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	345	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	136	pg/mL
9	ms IL-12p70	Calibrator	30400	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	13500	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	3380	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	806	pg/mL
10	ms TNF- α	Calibrator	662	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	166	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	29.9	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	4.93	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	799,000	2.5
161	218,000	2.4
40.3	53,300	2.2
10.1	13,500	2.8
2.52	3,420	2.8
0.629	1,040	5.0
0.157	381	10.0
0.00	165	19.0

ms IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
1510	464,000	2.8
378	134,000	2.9
94.4	36,800	3.2
23.6	9,240	4.3
5.90	2,510	4.1
1.47	751	4.7
0.369	305	12.0
0.00	153	25.0

ms IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
2980	912,000	3.4
745	247,000	5.2
186	57,400	4.1
46.6	13,000	4.7
11.6	3,680	4.7
2.91	1,130	2.8
0.728	495	6.8
0.00	278	12.0

ms IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
1670	975,000	2.1
418	277,000	2.4
104	73,800	2.2
26.1	19,100	3.1
6.52	5,030	2.0
1.63	1,500	3.8
0.408	565	5.7
0.00	252	12.0

ms IL-5 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
947	1,550,000	2.1
237	369,000	2.0
59.2	87,100	2.6
14.8	20,700	4.6
3.70	5,450	2.6
0.925	1,530	1.9
0.231	531	5.2
0.00	185	12.0

ms IL-6 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
4990	571,000	1.6
1250	125,000	1.7
312	29,300	2.7
78.0	7,090	3.1
19.5	2,090	1.8
4.87	706	3.8
1.22	371	5.8
0.00	246	8.0

ms KC/GRO - Spot 7		
Conc. pg/mL	ECL Signal	%CV
1870	1,430,000	3.2
468	314,000	2.2
117	64,500	2.8
29.2	13,700	3.1
7.30	3,620	2.6
1.83	1,000	2.3
0.457	377	7.0
0.00	146	19.0

ms IL-10 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
3530	808,000	3.9
883	193,000	3.1
221	47,700	3.7
55.2	12,100	3.4
13.8	3,320	2.7
3.45	1,200	4.5
0.862	647	9.9
0.00	522	24.0

ms IL-12p70 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
30400	638,000	3.8
7600	118,000	4.0
1900	20,900	3.0
475	4,140	4.1
119	1,150	3.3
29.7	399	6.8
7.42	206	12.0
0.00	151	16.0

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ms TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
662	627,000	1.5
166	146,000	2.5
41.4	35,800	1.9
10.3	8,830	3.4
2.59	2,490	2.8
0.646	787	3.3
0.162	366	8.9
0.00	215	15.0


Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (mouse) Plate	Z0046808	2-8°C	30 Sep 2020
Anti-ms IFN- γ Antibody	D0081086	2-8°C	30 Sep 2021
Anti-ms IL-1 β Antibody	D0081087	2-8°C	30 Nov 2021
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	D0081088	2-8°C	31 Oct 2021
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	D0081089	2-8°C	30 Sep 2021
Proinflammatory Panel 1 (mouse) Calibrator Blend	A0080152	2-8°C	30 Nov 2022
Diluent 41	M0410022	$\leq -10^{\circ}\text{C}$	31 Jul 2020
Diluent 45	M0450021	$\leq -10^{\circ}\text{C}$	30 Sep 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), 100 mL	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		25 JUN 2018