

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: K0081126
Expiration Date: 30 Sep 2020

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%

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	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	1430	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	2420	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	1610	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	903	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	4730	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	1830	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	3480	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	32600	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	629	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.

CERTIFICATE OF ANALYSIS

Page 3 of 4

Standard Curve Data:

ms IFN- γ - Spot 1		
Conc. pg/mL	ECL Signal	%CV
933	757,000	4.0
233	224,000	2.9
58.3	56,200	2.1
14.6	14,000	2.4
3.64	3,390	2.7
0.911	968	3.2
0.228	339	7.8
0.00	127	21.0

ms IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
1430	386,000	3.2
358	112,000	3.2
89.4	29,300	2.8
22.3	7,440	3.6
5.59	2,020	3.7
1.40	695	4.1
0.349	357	6.8
0.00	252	8.3

ms IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
2420	766,000	4.7
605	198,000	4.0
151	46,100	5.5
37.8	10,400	4.7
9.45	2,880	4.5
2.36	914	4.8
0.591	457	5.7
0.00	283	7.6

ms IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
1610	1,050,000	3.3
403	318,000	2.7
101	86,900	3.5
25.2	22,800	3.3
6.29	5,700	3.7
1.57	1,690	3.4
0.393	605	4.5
0.00	264	6.3

ms IL-5 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
903	1,170,000	2.2
226	277,000	1.4
56.4	64,800	1.7
14.1	15,800	2.7
3.53	4,000	2.3
0.882	1,150	3.1
0.220	433	5.2
0.00	197	6.8

ms IL-6 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
4730	487,000	3.0
1180	109,000	2.5
296	26,100	2.3
73.9	6,330	3.0
18.5	1,860	3.2
4.62	655	3.8
1.15	352	6.3
0.00	247	6.8

ms KC/GRO - Spot 7		
Conc. pg/mL	ECL Signal	%CV
1830	1,400,000	3.1
458	302,000	2.3
114	64,600	2.8
28.6	14,200	4.0
7.15	3,730	2.7
1.79	1,020	3.8
0.447	374	6.4
0.00	163	16.0

ms IL-10 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
3480	799,000	7.1
870	195,000	2.9
218	47,100	6.9
54.4	12,100	5.9
13.6	3,380	4.5
3.40	1,340	6.7
0.850	793	12.0
0.00	684	15.0

ms IL-12p70 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
32600	700,000	4.5
8150	134,000	3.5
2040	22,400	4.8
509	4,290	4.5
127	1,130	4.2
31.8	382	5.4
7.96	201	13.0
0.00	137	18.0

ms TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
629	561,000	3.0
157	129,000	1.7
39.3	31,500	2.2
9.83	7,640	3.5
2.46	2,170	2.4
0.614	709	5.3
0.154	347	6.9
0.00	253	22.0

CERTIFICATE OF ANALYSIS

Page 4 of 4


Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (mouse) Plate	Z0046948	2-8°C	31 Mar 2021
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	D0081149	2-8°C	28 Feb 2022
Anti-ms IL-4 Antibody	D0081150	2-8°C	28 Feb 2022
Anti-ms IL-5 Antibody	D0081151	2-8°C	30 Apr 2022
Anti-ms IL-6 Antibody	D0081088	2-8°C	31 Oct 2021
Anti-ms KC/GRO Antibody	D0081152	2-8°C	28 Feb 2022
Anti-ms IL-10 Antibody	D0081153	2-8°C	28 Feb 2022
Anti-ms IL-12p70 Antibody	D0081154	2-8°C	30 Apr 2022
Anti-ms TNF- α Antibody	D0081089	2-8°C	30 Sep 2021
Proinflammatory Panel 1 (mouse) Calibrator Blend	A0080168	2-8°C	31 May 2023
Diluent 41	M0410025	$\leq -10^{\circ}\text{C}$	31 Jan 2021
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		19 DEC 2018