

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: K0080803

Expiration Date: 31 May 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	IFN- γ	< 1.0%
2	IL-1 β	< 1.0%
3	IL-2	< 1.0%
4	IL-4	< 1.0%
5	IL-5	< 1.0%
6	IL-6	< 1.0%
7	KC/GRO	< 1.0%
8	IL-10	< 1.0%
9	IL-12p70	< 1.0%
10	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	938	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	280	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	21.5	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	1.88	pg/mL
2	ms IL-1 β	Calibrator	1710	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	673	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	49	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	4.47	pg/mL
3	ms IL-2	Calibrator	2870	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	897	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	63.4	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	5.02	pg/mL
4	ms IL-4	Calibrator	1740	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	437	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	60	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	13	pg/mL
5	ms IL-5	Calibrator	969	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	323	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	49.1	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	9.26	pg/mL
6	ms IL-6	Calibrator	5860	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	1590	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	247	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	40.1	pg/mL
7	ms KC/GRO	Calibrator	1980	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	651	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	108	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	17.7	pg/mL
8	ms IL-10	Calibrator	3180	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	1040	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	312	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	97.7	pg/mL
9	ms IL-12p70	Calibrator	31100	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	13400	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	3840	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	1120	pg/mL
10	ms TNF- α	Calibrator	674	pg/mL
		Proinflammatory Panel 1 (mouse) Control 1	140	pg/mL
		Proinflammatory Panel 1 (mouse) Control 2	27.8	pg/mL
		Proinflammatory Panel 1 (mouse) Control 3	5.12	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
938	1,130,000	3.1
235	345,000	2.3
58.6	88,500	2.1
14.7	22,500	2.1
3.66	5,710	2.9
0.916	1,600	2.4
0.229	488	4.8
0.00	108	18.0

ms IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
1710	641,000	3.5
428	186,000	3.0
107	50,700	3.1
26.7	12,700	2.3
6.68	3,460	3.2
1.67	994	3.9
0.417	368	5.0
0.00	142	14.0

ms IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
2870	842,000	5.1
718	239,000	5.1
179	55,600	4.3
44.8	12,500	2.9
11.2	3,430	5.9
2.80	947	4.8
0.701	365	7.5
0.00	149	13.0

ms IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
1740	1,000,000	4.4
435	305,000	3.5
109	81,400	3.3
27.2	21,200	4.6
6.80	5,480	3.1
1.70	1,650	3.2
0.425	601	5.1
0.00	241	8.4

ms IL-5 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
969	1,430,000	3.0
242	352,000	3.0
60.6	86,200	2.1
15.1	21,100	2.4
3.79	5,600	2.4
0.946	1,550	2.5
0.237	501	4.2
0.00	148	9.4

ms IL-6 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
5860	653,000	1.9
1470	150,000	4.8
366	36,500	3.1
91.6	8,670	4.1
22.9	2,660	4.1
5.72	850	7.4
1.43	413	18.0
0.00	237	17.0

ms KC/GRO - Spot 7		
Conc. pg/mL	ECL Signal	%CV
1980	1,110,000	3.7
495	234,000	4.4
124	48,900	4.0
30.9	10,700	3.6
7.73	2,970	5.0
1.93	854	10.0
0.483	384	20.0
0.00	250	42.0

ms IL-10 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
3180	534,000	2.8
795	127,000	3.0
199	30,500	4.0
49.7	7,860	5.3
12.4	2,490	5.1
3.11	1,100	5.9
0.776	783	11.0
0.00	627	8.3

ms IL-12p70 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
31100	723,000	2.7
7780	136,000	5.6
1940	24,200	3.0
486	4,860	2.9
121	1,450	5.7
30.4	488	9.1
7.59	295	14.0
0.00	215	26.0

CERTIFICATE OF ANALYSIS

ms TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
674	739,000	2.6
169	169,000	1.6
42.1	40,800	2.8
10.5	10,200	3.3
2.63	3,210	4.7
0.658	1,240	8.3
0.165	816	17.0
0.00	574	13.0

Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (mouse) Plate	Z0046487	2-8°C	31 Oct 2019
Anti-ms IFN- γ Antibody	D0080873	2-8°C	30 Jun 2019
Anti-ms IL-1 β Antibody	D0080874	2-8°C	30 Jun 2019
Anti-ms IL-2 Antibody	D0080853	2-8°C	31 May 2019
Anti-ms IL-4 Antibody	D0080875	2-8°C	30 Jun 2019
Anti-ms IL-5 Antibody	D0080855	2-8°C	31 May 2019
Anti-ms IL-6 Antibody	D0080876	2-8°C	30 Jun 2019
Anti-ms KC/GRO Antibody	D0080877	2-8°C	30 Jun 2019
Anti-ms IL-10 Antibody	D0080878	2-8°C	30 Jun 2019
Anti-ms IL-12p70 Antibody	D0080968	2-8°C	30 Sep 2019
Anti-ms TNF- α Antibody	D0080860	2-8°C	31 May 2019
Proinflammatory Panel 1 (mouse) Calibrator Blend	A0080138	2-8°C	31 May 2022
Diluent 41	M0410016	\leq -10°C	31 Aug 2019
Diluent 45	M0450016	\leq -10°C	30 Sep 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	<i>Dawn Stollar</i>	24 AUG 2017