

CERTIFICATE OF ANALYSIS

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Product Description: V-PLEX® and V-PLEX Plus Proinflammatory Panel 2(rat) Kit

Kit Catalog Numbers: K15059-Series

Kit Lot Number: K0081143

Expiration Date: 31 Jul 2020

Acceptance Data/ Percent Recovery Specifications:

Spot	Name	Calibrator		Proinflammatory Panel 1(rat) Control 1		Proinflammatory Panel 1(rat) Control 2		Proinflammatory Panel 1(rat) Control 3	
		Recovery	CV	Recovery	CV	Recovery	CV	Recovery	CV
1	rt IFN- γ	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
2	rt IL-1 β	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
4	rt IL-4	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
5	rt IL-5	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
6	rt IL-6	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
7	rt KC/GRO	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
8	rt IL-10	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
9	rt IL-13	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
10	rt 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	rt IFN- γ	39.7	75% - 125%	< 25%	3750	75% - 125%	< 25%
2	rt IL-1 β	102	75% - 125%	< 25%	8100	75% - 125%	< 25%
4	rt IL-4	8.00	75% - 125%	< 25%	723	75% - 125%	< 25%
5	rt IL-5	82.0	75% - 125%	< 25%	3000	75% - 125%	< 25%
6	rt IL-6	96.9	75% - 125%	< 25%	8550	75% - 125%	< 25%
7	rt KC/GRO	21.7	75% - 125%	< 25%	728	75% - 125%	< 25%
8	rt IL-10	163	75% - 125%	< 25%	15700	75% - 125%	< 25%
9	rt IL-13	12.5	75% - 125%	< 25%	1080	75% - 125%	< 25%
10	rt TNF- α	9.10	75% - 125%	< 25%	793	75% - 125%	< 25%

Acceptance Data/ Non Specific Binding Specifications:

Spot	Name	NSB Spec
1	rt IFN- γ	< 1.0%
2	rt IL-1 β	< 1.0%
4	rt IL-4	< 1.0%
5	rt IL-5	< 1.0%
6	rt IL-6	< 1.0%
7	rt KC/GRO	< 1.0%
8	rt IL-10	< 1.0%
9	rt IL-13	< 1.0%
10	rt TNF- α	< 1.0%

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Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	rt IFN- γ	Calibrator	5790	pg/mL
		Proinflammatory Panel 1(rat) Control 1	5130	pg/mL
		Proinflammatory Panel 1(rat) Control 2	1550	pg/mL
		Proinflammatory Panel 1(rat) Control 3	454	pg/mL
2	rt IL-1 β	Calibrator	13300	pg/mL
		Proinflammatory Panel 1(rat) Control 1	12000	pg/mL
		Proinflammatory Panel 1(rat) Control 2	3180	pg/mL
		Proinflammatory Panel 1(rat) Control 3	1090	pg/mL
4	rt IL-4	Calibrator	1100	pg/mL
		Proinflammatory Panel 1(rat) Control 1	977	pg/mL
		Proinflammatory Panel 1(rat) Control 2	275	pg/mL
		Proinflammatory Panel 1(rat) Control 3	84.9	pg/mL
5	rt IL-5	Calibrator	9230	pg/mL
		Proinflammatory Panel 1(rat) Control 1	3640	pg/mL
		Proinflammatory Panel 1(rat) Control 2	1820	pg/mL
		Proinflammatory Panel 1(rat) Control 3	927	pg/mL
6	rt IL-6	Calibrator	13200	pg/mL
		Proinflammatory Panel 1(rat) Control 1	10600	pg/mL
		Proinflammatory Panel 1(rat) Control 2	3480	pg/mL
		Proinflammatory Panel 1(rat) Control 3	1130	pg/mL
7	rt KC/GRO	Calibrator	2770	pg/mL
		Proinflammatory Panel 1(rat) Control 1	1180	pg/mL
		Proinflammatory Panel 1(rat) Control 2	569	pg/mL
		Proinflammatory Panel 1(rat) Control 3	289	pg/mL
8	rt IL-10	Calibrator	27700	pg/mL
		Proinflammatory Panel 1(rat) Control 1	23300	pg/mL
		Proinflammatory Panel 1(rat) Control 2	7020	pg/mL
		Proinflammatory Panel 1(rat) Control 3	2120	pg/mL
9	rt IL-13	Calibrator	1610	pg/mL
		Proinflammatory Panel 1(rat) Control 1	1370	pg/mL
		Proinflammatory Panel 1(rat) Control 2	400	pg/mL
		Proinflammatory Panel 1(rat) Control 3	123	pg/mL
10	rt TNF- α	Calibrator	1200	pg/mL
		Proinflammatory Panel 1(rat) Control 1	868	pg/mL
		Proinflammatory Panel 1(rat) Control 2	266	pg/mL
		Proinflammatory Panel 1(rat) Control 3	87.7	pg/mL

Controls tested may not be the same lot as shipped.

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Standard Curve Data:

rt IFN- γ - Spot 1			rt IL-1 β - Spot 2			rt IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV
5790	424,000	5.2	13300	1,450,000	2.1	1100	941,000	2.8
1450	118,000	6.1	3330	283,000	2.3	275	243,000	2.4
362	27,000	4.9	831	47,700	3.0	68.8	42,900	2.4
90.5	7,260	5.0	208	9,730	2.1	17.2	9,070	6.6
22.6	2,020	4.8	52.0	2,680	2.8	4.30	2,270	2.3
5.65	888	9.6	13.0	916	3.3	1.07	947	14.0
1.41	499	5.4	3.25	501	5.1	0.269	493	5.2
0.00	404	5.1	0.00	377	14.0	0.00	401	8.8

rt IL-5 - Spot 5			rt IL-6 - Spot 6			rt KC/GRO - Spot 7		
Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV
9230	1,920,000	3.0	13200	74,800	4.4	2770	919,000	6.5
2310	602,000	3.6	3300	17,400	4.7	693	371,000	5.7
577	103,000	4.1	825	4,310	4.7	173	81,000	5.5
144	12,800	3.8	206	1,220	11.0	43.3	19,000	4.1
36.1	1,680	2.9	51.6	560	4.0	10.8	5,170	3.2
9.01	513	8.2	12.9	351	7.2	2.71	1,680	3.2
2.25	349	5.1	3.22	312	7.8	0.676	887	5.3
0.00	329	17.0	0.00	329	19.0	0.00	636	6.5

rt IL-10 - Spot 8			rt IL-13 - Spot 9			rt TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV
27700	1,050,000	3.5	1610	1,130,000	2.1	1200	682,000	2.9
6930	277,000	2.6	403	210,000	2.3	300	132,000	3.4
1730	66,900	2.3	101	32,300	1.9	75.0	27,500	3.5
433	16,900	3.8	25.2	6,330	8.1	18.8	6,490	3.1
108	4,460	2.5	6.29	1,660	2.8	4.69	2,060	3.1
27.1	1,480	8.8	1.57	599	6.4	1.17	878	5.1
6.76	688	3.8	0.393	351	10.0	0.293	607	5.7
0.00	501	31.0	0.00	400	37.0	0.00	595	22.0

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Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 2 (rat) Plate	Z0046953	2-8°C	31 Mar 2021
Anti-rat IFN- γ Antibody	D0081171	2-8°C	28 Feb 2022
Anti-rat IL-1 β Antibody	D0081173	2-8°C	28 Feb 2022
Anti-rat IL-4 Antibody	D0081172	2-8°C	28 Feb 2022
Anti-rat IL-5 Antibody	D0081174	2-8°C	28 Feb 2022
Anti-rat IL-6 Antibody	D0081175	2-8°C	28 Feb 2022
Anti-rat KC/GRO Antibody	D0081176	2-8°C	28 Feb 2022
Anti-rat IL-10 Antibody	D0081177	2-8°C	28 Feb 2022
Anti-rat IL-13 Antibody	D0081178	2-8°C	28 Feb 2022
Anti-rat TNF- α Antibody	D0081179	2-8°C	28 Feb 2022
Proinflammatory Panel 1(rat) Calibrator Blend	A0080177	2-8°C	31 Dec 2023
Blocker H	R0100016	Room Temperature	30 Nov 2020
Diluent 42	M0420010	$\leq -10^{\circ}\text{C}$	31 Jul 2020
Diluent 40	M0400012	$\leq -10^{\circ}\text{C}$	31 May 2021
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(rat) Control 1	Not Kit Specific
Proinflammatory Panel 1(rat) Control 2	Not Kit Specific
Proinflammatory Panel 1(rat) 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		28 FEB 2019