

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; K153QO-Series; K153QR-Series; K153QS-Series; K153QT-Series; K153OD-Series
Kit Lot Number: K0081182
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	IFN- γ	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
2	IL-1 β	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
4	IL-4	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
5	IL-5	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
6	IL-6	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
7	KC/GRO	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
8	IL-10	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
9	IL-13	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
10	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	IFN- γ	39.7	75% - 125%	< 25%	3750	75% - 125%	< 25%
2	IL-1 β	102	75% - 125%	< 25%	8100	75% - 125%	< 25%
4	IL-4	8.00	75% - 125%	< 25%	723	75% - 125%	< 25%
5	IL-5	82.0	75% - 125%	< 25%	3000	75% - 125%	< 25%
6	IL-6	96.9	75% - 125%	< 25%	8550	75% - 125%	< 25%
7	KC/GRO	21.7	75% - 125%	< 25%	728	75% - 125%	< 25%
8	IL-10	163	75% - 125%	< 25%	15700	75% - 125%	< 25%
9	IL-13	12.5	75% - 125%	< 25%	1080	75% - 125%	< 25%
10	TNF- α	9.10	75% - 125%	< 25%	793	75% - 125%	< 25%

Acceptance Data/ Non Specific Binding Specifications:

Spot	Name	NSB Spec
1	IFN- γ	< 1.0%
2	IL-1 β	< 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-13	< 1.0%
10	TNF- α	< 1.0%

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Stock Concentration of Material Tested:

Spot	Name	Item	Conc	Units
1	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	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	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	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	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	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	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	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	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:

IFN- γ - Spot 1		
Conc. pg/mL	ECL Signal	%CV
5790	410,000	11.0
1450	113,000	7.9
362	25,000	8.7
90.5	7,180	6.7
22.6	2,160	14.0
5.65	999	10.0
1.41	619	5.4
0.00	526	6.5

IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
13300	1,360,000	7.9
3330	278,000	4.6
831	47,000	4.1
208	9,900	4.4
52.0	2,730	3.7
13.0	1,030	10.0
3.25	554	4.8
0.00	419	5.9

IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
1100	975,000	6.3
275	249,000	2.5
68.8	45,200	2.8
17.2	9,200	3.1
4.30	2,450	3.4
1.07	1,050	11.0
0.269	632	6.3
0.00	513	9.3

IL-5 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
9230	1,740,000	7.0
2310	538,000	2.7
577	87,100	4.4
144	10,500	4.0
36.1	1,430	3.8
9.01	648	27.0
2.25	362	5.2
0.00	332	6.4

IL-6 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
13200	66,100	4.7
3300	15,300	3.1
825	3,900	5.6
206	1,160	7.0
51.6	616	5.5
12.9	789	35.0
3.22	410	6.4
0.00	433	12.0

KC/GRO - Spot 7		
Conc. pg/mL	ECL Signal	%CV
2770	1,420,000	6.4
693	640,000	3.8
173	147,000	3.2
43.3	34,100	3.2
10.8	8,940	2.5
2.71	2,990	8.8
0.676	1,260	3.9
0.00	851	4.1

IL-10 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
27700	1,220,000	4.9
6930	319,000	3.2
1730	78,700	3.6
433	19,900	1.9
108	5,560	5.0
27.1	1,960	14.0
6.76	912	3.1
0.00	644	17.0

IL-13 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
1610	1,280,000	3.0
403	246,000	4.0
101	37,300	2.7
25.2	7,360	5.6
6.29	1,900	4.0
1.57	1,020	32.0
0.393	421	6.3
0.00	366	18.0

TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
1200	761,000	6.1
300	155,000	5.2
75.0	31,800	4.2
18.8	7,600	4.3
4.69	2,430	5.1
1.17	1,430	30.0
0.293	838	8.5
0.00	781	10.0

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Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 2 (rat) Plate	Z0047012	2-8°C	30 Jun 2021
Anti-rat IFN- γ Antibody	D0081196	2-8°C	31 May 2022
Anti-rat IL-1 β Antibody	D0081198	2-8°C	31 May 2022
Anti-rat IL-4 Antibody	D0081197	2-8°C	31 May 2022
Anti-rat IL-5 Antibody	D0081248	2-8°C	31 Oct 2022
Anti-rat IL-6 Antibody	D0081200	2-8°C	31 May 2022
Anti-rat KC/GRO Antibody	D0081201	2-8°C	31 Aug 2022
Anti-rat IL-10 Antibody	D0081202	2-8°C	31 Jul 2022
Anti-rat IL-13 Antibody	D0081203	2-8°C	31 Jul 2022
Anti-rat TNF- α Antibody	D0081204	2-8°C	31 May 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	M0400014	$\leq -10^{\circ}\text{C}$	31 Aug 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	Karen Hamilla	Quality		25 JUL 2019