

CERTIFICATE OF ANALYSIS

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Product Description: V-PLEX® and V-PLEX Plus Cytokine Panel 2 (human) Kit

Kit Catalog Numbers: K15084-Series

Kit Lot Number: K0080757

Expiration Date: 30 Apr 2019

Acceptance Data/ Percent Recovery Specifications:

Spot	Name	Calibrator		Cytokine Panel 2 (human) Control 1		Cytokine Panel 2 (human) Control 2		Cytokine Panel 2 (human) Control 3	
		Recovery	CV	Recovery	CV	Recovery	CV	Recovery	CV
1	hu IL-17A/F	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
2	hu IL-17B	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%
3	hu IL-17C	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%
4	hu IL-17D	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%
6	hu IL-1RA	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
7	hu IL-3	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
8	hu IL-9	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
10	hu TSLP	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%

Spot	Name	LLOQ			ULOQ		
		Value	Recovery	CV	Value	Recovery	CV
1	hu IL-17A/F	7.57	80% - 120%	< 20%	3900	80% - 120%	< 20%
2	hu IL-17B	1.12	75% - 125%	< 20%	1040	75% - 125%	< 20%
3	hu IL-17C	3.84	75% - 125%	< 20%	1620	75% - 125%	< 20%
4	hu IL-17D	11.2	75% - 125%	< 20%	5200	75% - 125%	< 20%
6	hu IL-1RA	9.19	75% - 125%	< 25%	650	80% - 120%	< 20%
7	hu IL-3	12.6	75% - 125%	< 20%	1950	80% - 120%	< 20%
8	hu IL-9	2.23	80% - 120%	< 25%	975	80% - 120%	< 20%
10	hu TSLP	0.460	75% - 125%	< 20%	325	75% - 125%	< 20%

Acceptance Data/ Non Specific Binding Specifications:

Spot	Name	NSB Spec
1	hu IL-17A/F	< 1.0%
2	hu IL-17B	< 1.0%
3	hu IL-17C	< 1.0%
4	hu IL-17D	< 1.0%
6	hu IL-1RA	< 1.0%
7	hu IL-3	< 1.0%
8	hu IL-9	< 1.0%
10	hu TSLP	< 1.0%

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Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	hu IL-17A/F	Calibrator	5430	pg/mL
		Cytokine Panel 2 (human) Control 1	2601	pg/mL
		Cytokine Panel 2 (human) Control 2	326	pg/mL
		Cytokine Panel 2 (human) Control 3	37.6	pg/mL
2	hu IL-17B	Calibrator	1240	pg/mL
		Cytokine Panel 2 (human) Control 1	522	pg/mL
		Cytokine Panel 2 (human) Control 2	106	pg/mL
		Cytokine Panel 2 (human) Control 3	36.2	pg/mL
3	hu IL-17C	Calibrator	2510	pg/mL
		Cytokine Panel 2 (human) Control 1	1041	pg/mL
		Cytokine Panel 2 (human) Control 2	165	pg/mL
		Cytokine Panel 2 (human) Control 3	19.2	pg/mL
4	hu IL-17D	Calibrator	7890	pg/mL
		Cytokine Panel 2 (human) Control 1	3350	pg/mL
		Cytokine Panel 2 (human) Control 2	250	pg/mL
		Cytokine Panel 2 (human) Control 3	31.5	pg/mL
6	hu IL-1RA	Calibrator	1150	pg/mL
		Cytokine Panel 2 (human) Control 1	482	pg/mL
		Cytokine Panel 2 (human) Control 2	84.7	pg/mL
		Cytokine Panel 2 (human) Control 3	14.5	pg/mL
7	hu IL-3	Calibrator	3360	pg/mL
		Cytokine Panel 2 (human) Control 1	1320	pg/mL
		Cytokine Panel 2 (human) Control 2	282	pg/mL
		Cytokine Panel 2 (human) Control 3	56	pg/mL
8	hu IL-9	Calibrator	1490	pg/mL
		Cytokine Panel 2 (human) Control 1	665	pg/mL
		Cytokine Panel 2 (human) Control 2	170	pg/mL
		Cytokine Panel 2 (human) Control 3	39.1	pg/mL
10	hu TSLP	Calibrator	555	pg/mL
		Cytokine Panel 2 (human) Control 1	253	pg/mL
		Cytokine Panel 2 (human) Control 2	35.8	pg/mL
		Cytokine Panel 2 (human) Control 3	5.15	pg/mL

Controls tested may not be the same lot as shipped.

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Standard Curve Data:

hu IL-17A/F - Spot 1		
Conc. pg/mL	ECL Signal	%CV
5430	727,000	3.5
1360	180,000	5.1
339	44,100	5.2
84.8	10,700	6.9
21.2	3,110	3.3
5.30	1,140	2.9
1.33	613	4.3
0.00	446	5.7

hu IL-17B - Spot 2		
Conc. pg/mL	ECL Signal	%CV
1240	546,000	5.7
310	120,000	6.0
77.5	29,900	3.3
19.4	7,340	5.5
4.84	2,000	2.2
1.21	655	3.8
0.303	302	6.9
0.00	191	8.5

hu IL-17C - Spot 3		
Conc. pg/mL	ECL Signal	%CV
2510	362,000	3.5
628	94,800	3.6
157	25,200	3.0
39.2	6,280	4.0
9.80	1,860	2.7
2.45	718	3.2
0.613	430	5.4
0.00	335	6.4

hu IL-17D - Spot 4		
Conc. pg/mL	ECL Signal	%CV
7890	348,000	6.0
1970	94,100	6.0
493	24,600	4.5
123	6,420	4.5
30.8	1,820	4.8
7.71	697	5.2
1.93	393	6.8
0.00	308	12.0

hu IL-1RA - Spot 6		
Conc. pg/mL	ECL Signal	%CV
1150	749,000	4.5
288	140,000	5.1
71.9	25,100	4.4
18.0	4,950	8.4
4.49	1,570	4.4
1.12	800	13.0
0.281	537	11.0
0.00	428	10.0

hu IL-3 - Spot 7		
Conc. pg/mL	ECL Signal	%CV
3360	1,040,000	6.1
840	197,000	5.3
210	27,400	6.0
52.5	4,050	6.1
13.1	1,040	3.6
3.28	454	5.9
0.820	330	8.2
0.00	276	6.8

hu IL-9 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
1490	1,230,000	3.5
373	297,000	10.0
93.1	76,900	10.0
23.3	19,100	12.0
5.82	5,140	5.9
1.46	1,590	9.7
0.364	687	12.0
0.00	443	23.0

hu TSLP - Spot 10		
Conc. pg/mL	ECL Signal	%CV
555	544,000	4.0
139	138,000	6.9
34.7	36,300	4.8
8.67	8,910	6.8
2.17	2,490	3.2
0.542	789	4.0
0.135	365	7.7
0.00	217	12.0

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Components:

Description	Lot Number	Storage Temperature	Expiration Date
Cytokine Panel 2 (human) Plate	Z0046329	2-8°C	30 Jun 2019
Anti-hu IL-17A/F Antibody	D0080766	2-8°C	30 Apr 2019
Anti-hu IL-17B Antibody	D0080767	2-8°C	30 Apr 2019
Anti-hu IL-17C Antibody	D0080768	2-8°C	30 Apr 2019
Anti-hu IL-17D Antibody	D0080946	2-8°C	31 Aug 2019
Anti-hu IL-1RA Antibody	D0080771	2-8°C	30 Apr 2019
Anti-hu IL-3 Antibody	D0080772	2-8°C	30 Apr 2019
Anti-hu IL-9 Antibody	D0080773	2-8°C	30 Apr 2019
Anti-hu TSLP Antibody	D0080775	2-8°C	30 Apr 2019
Cytokine Panel 2 (human) Calibrator Blend	A0080114	2-8°C	31 Dec 2021
Diluent 43	M0430020	≤ -10°C	30 Jun 2019
Diluent 3	M0030074	≤ -10°C	30 Jun 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
Cytokine Panel 2 (human) Control 1	Not Kit Specific
Cytokine Panel 2 (human) Control 2	Not Kit Specific
Cytokine Panel 2 (human) 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>	27 JUL 2017