

CERTIFICATE OF ANALYSIS

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Product Description: V-PLEX® and V-PLEX Plus TH17 Panel 1 (human) Kit

Kit Catalog Numbers: K15085-Series

Kit Lot Number: K0081212

Expiration Date: 30 Sep 2021

Acceptance Data/ Percent Recovery Specifications:

Spot	Name	Calibrator		TH17 Panel 1 (human) Control 1		TH17 Panel 1 (human) Control 2		TH17 Panel 1 (human) Control 3	
		Recovery	CV	Recovery	CV	Recovery	CV	Recovery	CV
1	IL-17A Gen. B	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
4	IL-21	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%
5	IL-31	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
6	IL-27	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
7	IL-23	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
8	IL-22	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
10	MIP-3α	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%

Spot	Name	LLOQ			ULOQ		
		Value	Recovery	CV	Value	Recovery	CV
1	IL-17A Gen. B	5.86	80% - 120%	< 20%	1950	80% - 120%	< 20%
4	IL-21	6.13	80% - 120%	< 20%	650	80% - 120%	< 20%
5	IL-31	4.22	80% - 120%	< 20%	650	80% - 120%	< 20%
6	IL-27	38.7	80% - 120%	< 20%	13000	80% - 120%	< 20%
7	IL-23	4.60	80% - 120%	< 20%	3250	80% - 120%	< 20%
8	IL-22	2.78	80% - 120%	< 20%	325	80% - 120%	< 20%
10	MIP-3α	0.880	80% - 120%	< 20%	325	80% - 120%	< 20%

Acceptance Data/ Non Specific Binding Specifications:

Spot	Name	NSB Spec
1	IL-17A	< 1.0%
4	IL-21	< 1.0%
5	IL-31	< 1.0%
6	IL-27	< 1.0%
7	IL-23	< 1.0%
8	IL-22	< 1.0%
10	MIP-3α	< 1.0%

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Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	IL-17A Gen. B	Calibrator	2640	pg/mL
		TH17 Panel 1 (human) Control 1	2080	pg/mL
		TH17 Panel 1 (human) Control 2	308	pg/mL
		TH17 Panel 1 (human) Control 3	49.4	pg/mL
4	IL-21	Calibrator	1200	pg/mL
		TH17 Panel 1 (human) Control 1	987	pg/mL
		TH17 Panel 1 (human) Control 2	169	pg/mL
		TH17 Panel 1 (human) Control 3	26.8	pg/mL
5	IL-31	Calibrator	1060	pg/mL
		TH17 Panel 1 (human) Control 1	1140	pg/mL
		TH17 Panel 1 (human) Control 2	179	pg/mL
		TH17 Panel 1 (human) Control 3	26.4	pg/mL
6	IL-27	Calibrator	19300	pg/mL
		TH17 Panel 1 (human) Control 1	32100	pg/mL
		TH17 Panel 1 (human) Control 2	6870	pg/mL
		TH17 Panel 1 (human) Control 3	1570	pg/mL
7	IL-23	Calibrator	5220	pg/mL
		TH17 Panel 1 (human) Control 1	5730	pg/mL
		TH17 Panel 1 (human) Control 2	632	pg/mL
		TH17 Panel 1 (human) Control 3	71	pg/mL
8	IL-22	Calibrator	545	pg/mL
		TH17 Panel 1 (human) Control 1	525	pg/mL
		TH17 Panel 1 (human) Control 2	84.7	pg/mL
		TH17 Panel 1 (human) Control 3	17.6	pg/mL
10	MIP-3 α	Calibrator	393	pg/mL
		TH17 Panel 1 (human) Control 1	503	pg/mL
		TH17 Panel 1 (human) Control 2	205	pg/mL
		TH17 Panel 1 (human) Control 3	73.9	pg/mL

Controls tested may not be the same lot as shipped.

Standard Curve Data:

IL-17A Gen. B - Spot 1			IL-21 - Spot 4			IL-31 - Spot 5		
Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV
2640	434,000	2.3	1200	61,900	4.6	1060	541,000	3.6
660	101,000	3.4	300	15,800	4.0	265	158,000	4.6
165	24,800	4.4	75.0	4,310	4.1	66.3	42,900	3.7
41.3	6,820	3.4	18.8	1,540	3.4	16.6	11,600	4.3
10.3	2,150	2.6	4.69	813	4.9	4.14	3,000	3.4
2.58	993	4.4	1.17	682	5.7	1.04	854	3.8
0.645	653	5.8	0.293	610	4.5	0.259	321	4.4
0.00	553	8.2	0.00	620	6.7	0.00	135	15.0

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IL-27 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
19300	80,300	4.0
4830	23,400	4.8
1210	6,530	5.2
302	1,840	5.3
75.4	747	5.2
18.8	449	6.5
4.71	370	5.1
0.00	340	8.7

IL-23 - Spot 7		
Conc. pg/mL	ECL Signal	%CV
5220	440,000	4.4
1310	121,000	7.4
326	32,900	5.6
81.6	8,270	7.9
20.4	2,280	8.7
5.10	759	4.6
1.27	386	7.4
0.00	264	12.0

IL-22 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
545	431,000	3.5
136	123,000	3.7
34.1	31,000	6.1
8.52	8,460	6.0
2.13	2,380	9.4
0.532	999	5.6
0.133	620	8.6
0.00	545	18.0

MIP-3 α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
393	128,000	2.7
98.3	28,700	3.7
24.6	6,880	3.1
6.14	1,960	5.6
1.54	839	3.4
0.384	558	8.4
0.0959	463	5.0
0.00	446	7.5

Components:

Description	Lot Number	Storage Temperature	Expiration Date
TH17 Panel 1 (human) Plate	Z0047051	2-8°C	30 Nov 2021
Anti-hu IL-17A Antibody	D0081135	2-8°C	30 Apr 2022
Anti-hu IL-21 Antibody	D0081136	2-8°C	31 Mar 2022
Anti-hu IL-31 Antibody	D0081140	2-8°C	28 Feb 2022
Anti-hu IL-27 Antibody	D0081139	2-8°C	28 Feb 2022
Anti-hu IL-23 Antibody	D0081138	2-8°C	31 Mar 2022
Anti-hu IL-22 Antibody	D0081137	2-8°C	28 Feb 2022
Anti-hu MIP-3 α Antibody	D0081316	2-8°C	31 Jan 2023
TH17 Panel 1 (human) Calibrator Blend	A0080219	2-8°C	30 Apr 2024
Diluent 43	M0430032	≤ -10°C	30 Sep 2021
Diluent 3	M0030089	≤ -10°C	30 Sep 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), 100 mL	Not Kit Specific
TH17 Panel 1 (human) Control 1	Not Kit Specific
TH17 Panel 1 (human) Control 2	Not Kit Specific
TH17 Panel 1 (human) Control 3	Not Kit Specific

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Additional Comments:

	Assay	Spot	Specification	Comment
1	IL-21	4	LLOQ CV	Reported LLOQ 6.13 pg/mL
2	MIP-3 α	10	Control Conc.	Control recovery window 80% - 120%
3	MIP-3 α	10	LLOQ CV	Reported LLOQ 0.88 pg/mL

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		19 NOV 2019