

## 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:** K0081020

**Expiration Date:** 31 Jan 2019

### 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	hu IL-17A Gen.B	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
4	hu IL-21	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%
5	hu IL-31	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
6	hu IL-27	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
7	hu IL-23	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
8	hu IL-22	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
10	hu 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	hu IL-17A Gen.B	5.86	80% - 120%	< 20%	1950	80% - 120%	< 20%
4	hu IL-21	1.65	80% - 120%	< 20%	650	80% - 120%	< 20%
5	hu IL-31	4.22	80% - 120%	< 20%	650	80% - 120%	< 20%
6	hu IL-27	38.7	80% - 120%	< 20%	13000	80% - 120%	< 20%
7	hu IL-23	4.60	80% - 120%	< 20%	3250	80% - 120%	< 20%
8	hu IL-22	2.78	80% - 120%	< 20%	325	80% - 120%	< 20%
10	hu MIP-3α	0.588	80% - 120%	< 20%	325	80% - 120%	< 20%

### Acceptance Data/ Non Specific Binding Specifications:

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

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**Stock Concentration of Material Tested :**

Spot	Name	Item	Conc	Units
1	hu IL-17A Gen.B	Calibrator	2600	pg/mL
		TH17 Panel 1 (human) Control 1	2640	pg/mL
		TH17 Panel 1 (human) Control 2	428	pg/mL
		TH17 Panel 1 (human) Control 3	60	pg/mL
4	hu IL-21	Calibrator	913	pg/mL
		TH17 Panel 1 (human) Control 1	1040	pg/mL
		TH17 Panel 1 (human) Control 2	158	pg/mL
		TH17 Panel 1 (human) Control 3	26.5	pg/mL
5	hu IL-31	Calibrator	895	pg/mL
		TH17 Panel 1 (human) Control 1	945	pg/mL
		TH17 Panel 1 (human) Control 2	147	pg/mL
		TH17 Panel 1 (human) Control 3	21.4	pg/mL
6	hu IL-27	Calibrator	15100	pg/mL
		TH17 Panel 1 (human) Control 1	21400	pg/mL
		TH17 Panel 1 (human) Control 2	4190	pg/mL
		TH17 Panel 1 (human) Control 3	952	pg/mL
7	hu IL-23	Calibrator	4350	pg/mL
		TH17 Panel 1 (human) Control 1	4100	pg/mL
		TH17 Panel 1 (human) Control 2	487	pg/mL
		TH17 Panel 1 (human) Control 3	55.3	pg/mL
8	hu IL-22	Calibrator	523	pg/mL
		TH17 Panel 1 (human) Control 1	540	pg/mL
		TH17 Panel 1 (human) Control 2	103	pg/mL
		TH17 Panel 1 (human) Control 3	17.2	pg/mL
10	hu MIP-3 $\alpha$	Calibrator	443	pg/mL
		TH17 Panel 1 (human) Control 1	582	pg/mL
		TH17 Panel 1 (human) Control 2	238	pg/mL
		TH17 Panel 1 (human) Control 3	94.7	pg/mL

Controls tested may not be the same lot as shipped.

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## Standard Curve Data:

hu IL-17A Gen.B - Spot 1		
Conc. pg/mL	ECL Signal	%CV
2600	518,000	2.5
650	125,000	3.8
163	30,600	2.8
40.6	7,830	2.8
10.2	2,100	3.1
2.54	775	4.8
0.635	411	6.3
0.00	294	9.4

hu IL-21 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
913	339,000	2.1
228	101,000	3.4
57.1	22,800	4.8
14.3	6,020	4.4
3.57	1,670	3.9
0.892	669	5.5
0.223	391	9.0
0.00	298	9.8

hu IL-31 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
895	519,000	1.7
224	162,000	2.6
55.9	43,300	2.3
14.0	11,300	2.1
3.50	2,930	2.2
0.874	835	4.3
0.219	303	7.6
0.00	118	12.0

hu IL-27 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
15100	207,000	2.8
3780	40,700	3.5
944	9,400	3.8
236	2,460	3.8
59.0	830	3.6
14.7	381	5.4
3.69	264	5.6
0.00	221	10.0

hu IL-23 - Spot 7		
Conc. pg/mL	ECL Signal	%CV
4350	366,000	3.1
1090	113,000	3.3
272	29,800	3.3
68.0	7,410	3.5
17.0	2,100	3.5
4.25	686	4.8
1.06	350	5.2
0.00	232	12.0

hu IL-22 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
523	457,000	2.2
131	131,000	3.7
32.7	34,000	2.8
8.17	9,370	3.1
2.04	3,030	3.1
0.511	1,540	3.7
0.128	1,120	3.5
0.00	984	5.4

hu MIP-3 $\alpha$ - Spot 10		
Conc. pg/mL	ECL Signal	%CV
443	555,000	1.6
111	124,000	4.0
27.7	21,500	6.0
6.92	4,950	6.9
1.73	1,420	4.8
0.433	566	7.0
0.108	358	7.3
0.00	293	5.8

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**Components:**

Description	Lot Number	Storage Temperature	Expiration Date
TH17 Panel 1 (human) Plate	Z0046334	2-8°C	30 Jun 2019
Anti-hu IL-17A Antibody	D0080754	2-8°C	31 Jan 2019
Anti-hu IL-21 Antibody	D0080757	2-8°C	31 Jan 2019
Anti-hu IL-31 Antibody	D0080761	2-8°C	31 Jan 2019
Anti-hu IL-27 Antibody	D0080896	2-8°C	31 Jul 2019
Anti-hu IL-23 Antibody	D0080759	2-8°C	31 Jan 2019
Anti-hu IL-22 Antibody	D0080895	2-8°C	31 Jul 2019
Anti-hu MIP-3α Antibody	D0080763	2-8°C	31 Jan 2019
TH17 Panel 1 (human) Calibrator Blend	A0080111	2-8°C	30 Nov 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), 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

**Statement:**

The above product is intended for Research Use Only. Not for use in Diagnostic Procedures.

	Name	Function	Signature	Date
<b>Review/Approval</b>	Dawn Stollar	Quality Assurance	<i>Dawn Stollar</i>	18 JUN 2018