

CERTIFICATE OF ANALYSIS

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

Kit Catalog Numbers: K15246-Series, K152WU-Series

Kit Lot Number: K0080833

Expiration Date: 31 Oct 2019

Acceptance Data/ Percent Recovery Specifications:

Spot	Name	Calibrator		TH17 Panel 1 (mouse) Control 1		TH17 Panel 1 (mouse) Control 2		TH17 Panel 1 (mouse) Control 3	
		Recovery	CV	Recovery	CV	Recovery	CV	Recovery	CV
1	ms MIP-3 α	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%
2	ms IL-22	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%
3	ms IL-23	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%
4	ms IL-17C	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%
5	ms IL-31	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%
6	ms IL-21	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%
7	ms IL-17F	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%
8	ms IL-16	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%
9	ms IL-17A	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%
10	ms IL-17E/IL-25	80% - 120%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%	75% - 125%	< 20%

Spot	Name	LLOQ			ULOQ		
		Value	Recovery	CV	Value	Recovery	CV
1	ms MIP-3 α	3.42	75% - 125%	< 20%	530	75% - 125%	< 20%
2	ms IL-22	1.58	75% - 125%	< 20%	380	75% - 125%	< 20%
3	ms IL-23	4.19	75% - 125%	< 25%	7600	75% - 125%	< 20%
4	ms IL-17C	0.971	75% - 125%	< 20%	1200	75% - 125%	< 20%
5	ms IL-31	22.6	75% - 125%	< 20%	21000	75% - 125%	< 20%
6	ms IL-21	12.1	75% - 125%	< 25%	9300	75% - 125%	< 20%
7	ms IL-17F	320	75% - 125%	< 20%	52000	75% - 125%	< 20%
8	ms IL-16	15.0	75% - 125%	< 25%	1800	75% - 125%	< 20%
9	ms IL-17A	0.255	75% - 125%	< 20%	360	75% - 125%	< 20%
10	ms IL-17E/IL-25	4.54	75% - 125%	< 20%	3300	75% - 125%	< 20%

Acceptance Data/ Non Specific Binding Specifications:

Spot	Name	ms MIP-3 α	ms IL-22	ms IL-23	ms IL-17C	ms IL-31
1	ms MIP-3 α	NA	< 1.0%	< 1.0%	< 1.0%	< 1.0%
2	ms IL-22	< 1.0%	NA	< 1.0%	< 1.0%	< 1.0%
3	ms IL-23	< 1.0%	< 1.0%	NA	< 1.0%	< 1.0%
4	ms IL-17C	< 1.0%	< 1.0%	< 1.0%	NA	< 1.0%
5	ms IL-31	< 1.0%	< 1.0%	< 1.0%	< 1.0%	NA
6	ms IL-21	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
7	ms IL-17F	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
8	ms IL-16	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
9	ms IL-17A	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
10	ms IL-17E/IL-25	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%

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Spot	Name	ms IL-21	ms IL-17F	ms IL-16	ms IL-17A	ms IL-17E/IL-25
1	ms MIP-3 α	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
2	ms IL-22	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
3	ms IL-23	< 1.0%	< 2.0%	< 1.0%	< 1.0%	< 1.0%
4	ms IL-17C	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
5	ms IL-31	< 1.0%	< 1.0%	< 1.0%	< 1.0%	< 1.0%
6	ms IL-21	NA	< 1.0%	< 1.0%	< 1.0%	< 1.0%
7	ms IL-17F	< 1.0%	NA	< 1.0%	< 1.0%	< 1.0%
8	ms IL-16	< 1.0%	< 1.0%	NA	< 1.0%	< 1.0%
9	ms IL-17A	< 1.0%	< 1.0%	< 1.0%	NA	< 1.0%
10	ms IL-17E/IL-25	< 1.0%	< 1.0%	< 1.0%	< 1.0%	NA

Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	ms MIP-3 α	Calibrator	1130	pg/mL
		TH17 Panel 1 (mouse) Control 1	841	pg/mL
		TH17 Panel 1 (mouse) Control 2	211	pg/mL
		TH17 Panel 1 (mouse) Control 3	57.9	pg/mL
2	ms IL-22	Calibrator	510	pg/mL
		TH17 Panel 1 (mouse) Control 1	421	pg/mL
		TH17 Panel 1 (mouse) Control 2	129	pg/mL
		TH17 Panel 1 (mouse) Control 3	41.5	pg/mL
3	ms IL-23	Calibrator	8380	pg/mL
		TH17 Panel 1 (mouse) Control 1	6930	pg/mL
		TH17 Panel 1 (mouse) Control 2	1390	pg/mL
		TH17 Panel 1 (mouse) Control 3	270	pg/mL
4	ms IL-17C	Calibrator	1770	pg/mL
		TH17 Panel 1 (mouse) Control 1	1510	pg/mL
		TH17 Panel 1 (mouse) Control 2	241	pg/mL
		TH17 Panel 1 (mouse) Control 3	54.3	pg/mL
5	ms IL-31	Calibrator	28500	pg/mL
		TH17 Panel 1 (mouse) Control 1	23400	pg/mL
		TH17 Panel 1 (mouse) Control 2	4800	pg/mL
		TH17 Panel 1 (mouse) Control 3	1010	pg/mL
6	ms IL-21	Calibrator	12000	pg/mL
		TH17 Panel 1 (mouse) Control 1	11700	pg/mL
		TH17 Panel 1 (mouse) Control 2	2090	pg/mL
		TH17 Panel 1 (mouse) Control 3	279	pg/mL
7	ms IL-17F	Calibrator	85000	pg/mL
		TH17 Panel 1 (mouse) Control 1	49100	pg/mL
		TH17 Panel 1 (mouse) Control 2	10500	pg/mL
		TH17 Panel 1 (mouse) Control 3	2270	pg/mL
8	ms IL-16	Calibrator	2420	pg/mL
		TH17 Panel 1 (mouse) Control 1	1970	pg/mL
		TH17 Panel 1 (mouse) Control 2	1030	pg/mL
		TH17 Panel 1 (mouse) Control 3	635	pg/mL

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9	ms IL-17A	Calibrator	550	pg/mL
		TH17 Panel 1 (mouse) Control 1	461	pg/mL
		TH17 Panel 1 (mouse) Control 2	75.5	pg/mL
		TH17 Panel 1 (mouse) Control 3	14.7	pg/mL
10	ms IL-17E/IL-25	Calibrator	4540	pg/mL
		TH17 Panel 1 (mouse) Control 1	3480	pg/mL
		TH17 Panel 1 (mouse) Control 2	889	pg/mL
		TH17 Panel 1 (mouse) Control 3	208	pg/mL

Controls tested may not be the same lot as shipped.

Standard Curve Data:

ms MIP-3 α - Spot 1		
Conc. pg/mL	ECL Signal	%CV
1130	929,000	6.9
283	181,000	2.7
70.6	36,300	4.9
17.7	9,360	2.8
4.41	2,620	3.4
1.10	1,070	3.2
0.276	677	5.1
0.00	560	4.7

ms IL-22 - Spot 2		
Conc. pg/mL	ECL Signal	%CV
510	1,310,000	2.0
128	277,000	2.1
31.9	58,300	2.7
7.97	14,500	3.3
1.99	4,190	3.7
0.498	1,720	2.8
0.125	1,140	2.5
0.00	926	3.2

ms IL-23 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
8380	895,000	3.6
2100	308,000	3.2
524	87,500	4.7
131	23,600	4.8
32.7	6,320	4.1
8.18	1,950	3.0
2.05	943	4.7
0.00	570	6.6

ms IL-17C - Spot 4		
Conc. pg/mL	ECL Signal	%CV
1770	960,000	3.4
443	243,000	3.4
111	61,500	3.0
27.7	16,700	3.5
6.91	4,480	2.6
1.73	1,550	2.8
0.432	794	3.1
0.00	530	3.9

ms IL-31 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
28500	709,000	5.7
7130	236,000	3.1
1780	50,700	3.4
445	11,300	3.5
111	3,170	3.6
27.8	1,260	3.1
6.96	787	4.2
0.00	628	4.1

ms IL-21 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
12000	445,000	2.4
3000	198,000	3.2
750	64,600	3.4
188	18,600	3.8
46.9	5,030	2.9
11.7	1,730	2.2
2.93	904	4.8
0.00	591	5.0

ms IL-17F - Spot 7		
Conc. pg/mL	ECL Signal	%CV
85000	366,000	6.1
21300	104,000	4.0
5310	25,700	3.8
1330	7,150	4.1
332	2,460	4.1
83.0	1,320	3.1
20.8	1,060	5.2
0.00	939	4.6

ms IL-16 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
2420	909,000	4.3
605	190,000	3.0
151	35,400	2.9
37.8	7,490	2.4
9.45	2,520	6.3
2.36	1,430	6.2
0.591	1,180	7.6
0.00	1,130	9.3

ms IL-17A - Spot 9		
Conc. pg/mL	ECL Signal	%CV
550	1,170,000	2.2
138	339,000	2.0
34.4	91,300	2.1
8.59	24,700	1.8
2.15	6,540	2.1
0.537	2,090	1.5
0.134	967	4.1
0.00	544	8.7

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ms IL-17E/IL-25 - Spot 10		
Conc. pg/mL	ECL Signal	%CV
4540	1,680,000	3.9
1140	373,000	3.4
284	85,500	3.5
70.9	21,800	3.7
17.7	6,190	3.0
4.43	2,170	7.7
1.11	1,180	12.0
0.00	839	14.0


Components:

Description	Lot Number	Storage Temperature	Expiration Date
TH17 Panel 1 (mouse) Plate	Z0046528	2-8°C	30 Nov 2019
Anti-ms MIP-3α Antibody	D0080949	2-8°C	31 Oct 2019
Anti-ms IL-22 Antibody	D0080950	2-8°C	31 Oct 2019
Anti-ms IL-23 Antibody	D0080951	2-8°C	30 Nov 2019
Anti-ms IL-17C Antibody	D0080952	2-8°C	30 Nov 2019
Anti-ms IL-31 Antibody	D0080953	2-8°C	30 Nov 2019
Anti-ms IL-21 Antibody	D0080954	2-8°C	31 Oct 2019
Anti-ms IL-17F Antibody	D0080955	2-8°C	31 Oct 2019
Anti-ms IL-16 Antibody	D0080956	2-8°C	31 Oct 2019
Anti-ms IL-17A Antibody	D0080957	2-8°C	30 Nov 2019
Anti-ms IL-17E/IL-25 Antibody	D0080958	2-8°C	31 Oct 2019
TH17 Panel 1 (mouse) Calibrator Blend	A0080146	2-8°C	31 Aug 2022
Diluent 41	M0410018	≤ -10°C	30 Nov 2019
Diluent 45	M0450019	≤ -10°C	31 Dec 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
TH17 Panel 1 (mouse) Control 1	Not Kit Specific
TH17 Panel 1 (mouse) Control 2	Not Kit Specific
TH17 Panel 1 (mouse) 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		03 JAN 2018