

CERTIFICATE OF ANALYSIS

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Product Description: V-PLEX® and V-PLEX Plus Proinflammatory Panel 1 (human) Kit
Kit Catalog Numbers: K15049-series, K15052-series, K15053-series
Kit Lot Number: K0080874
Expiration Date: 31 May 2019

Acceptance Data/ Percent Recovery Specifications:

Spot	Name	Calibrator		Proinflammatory Panel 1(human) Control 1		Proinflammatory Panel 1(human) Control 2		Proinflammatory Panel 1(human) Control 3	
		Recovery	CV	Recovery	CV	Recovery	CV	Recovery	CV
1	hu IFN- γ	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
2	hu IL-1 β	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
3	hu IL-2	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
4	hu IL-4	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
5	hu IL-6	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
6	hu IL-8	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
7	hu IL-10	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
8	hu IL-12p70	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
9	hu IL-13	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
10	hu TNF- α	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%

Spot	Name	LLOQ			ULOQ		
		Value	Recovery	CV	Value	Recovery	CV
1	hu IFN- γ	7.47	80% - 120%	< 20%	938	80% - 120%	< 20%
2	hu IL-1 β	2.14	80% - 120%	< 20%	375	80% - 120%	< 20%
3	hu IL-2	0.890	80% - 120%	< 20%	938	80% - 120%	< 20%
4	hu IL-4	0.450	80% - 120%	< 20%	158	80% - 120%	< 20%
5	hu IL-6	1.58	80% - 120%	< 20%	488	80% - 120%	< 20%
6	hu IL-8	1.13	80% - 120%	< 20%	375	80% - 120%	< 20%
7	hu IL-10	0.680	80% - 120%	< 20%	233	80% - 120%	< 20%
8	hu IL-12p70	1.22	80% - 120%	< 20%	315	80% - 120%	< 20%
9	hu IL-13	4.21	80% - 120%	< 20%	353	80% - 120%	< 20%
10	hu TNF- α	0.690	80% - 120%	< 20%	248	80% - 120%	< 20%

Acceptance Data/ Non Specific Binding Specifications:

Spot	Name	NSB Spec
1	hu IFN- γ	< 1.0%
2	hu IL-1 β	< 1.0%
3	hu IL-2	< 1.0%
4	hu IL-4	< 1.0%
5	hu IL-6	< 1.0%
6	hu IL-8	< 1.0%
7	hu IL-10	< 1.0%
8	hu IL-12p70	< 1.0%
9	hu IL-13	< 1.0%
10	hu TNF- α	< 1.0%

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Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	hu IFN- γ	Calibrator	1360	pg/mL
		Proinflammatory Panel 1(human) Control 1	682	pg/mL
		Proinflammatory Panel 1(human) Control 2	183	pg/mL
		Proinflammatory Panel 1(human) Control 3	52.3	pg/mL
2	hu IL-1 β	Calibrator	561	pg/mL
		Proinflammatory Panel 1(human) Control 1	215	pg/mL
		Proinflammatory Panel 1(human) Control 2	52	pg/mL
		Proinflammatory Panel 1(human) Control 3	11	pg/mL
3	hu IL-2	Calibrator	1430	pg/mL
		Proinflammatory Panel 1(human) Control 1	431	pg/mL
		Proinflammatory Panel 1(human) Control 2	42.3	pg/mL
		Proinflammatory Panel 1(human) Control 3	3.83	pg/mL
4	hu IL-4	Calibrator	244	pg/mL
		Proinflammatory Panel 1(human) Control 1	101	pg/mL
		Proinflammatory Panel 1(human) Control 2	20.3	pg/mL
		Proinflammatory Panel 1(human) Control 3	2.88	pg/mL
5	hu IL-6	Calibrator	697	pg/mL
		Proinflammatory Panel 1(human) Control 1	275	pg/mL
		Proinflammatory Panel 1(human) Control 2	50.7	pg/mL
		Proinflammatory Panel 1(human) Control 3	9.03	pg/mL
6	hu IL-8	Calibrator	576	pg/mL
		Proinflammatory Panel 1(human) Control 1	223	pg/mL
		Proinflammatory Panel 1(human) Control 2	40.4	pg/mL
		Proinflammatory Panel 1(human) Control 3	5.91	pg/mL
7	hu IL-10	Calibrator	359	pg/mL
		Proinflammatory Panel 1(human) Control 1	133	pg/mL
		Proinflammatory Panel 1(human) Control 2	27.8	pg/mL
		Proinflammatory Panel 1(human) Control 3	3.61	pg/mL
8	hu IL-12p70	Calibrator	482	pg/mL
		Proinflammatory Panel 1(human) Control 1	168	pg/mL
		Proinflammatory Panel 1(human) Control 2	33.2	pg/mL
		Proinflammatory Panel 1(human) Control 3	6.12	pg/mL
9	hu IL-13	Calibrator	478	pg/mL
		Proinflammatory Panel 1(human) Control 1	150	pg/mL
		Proinflammatory Panel 1(human) Control 2	46.7	pg/mL
		Proinflammatory Panel 1(human) Control 3	12.3	pg/mL
10	hu TNF- α	Calibrator	364	pg/mL
		Proinflammatory Panel 1(human) Control 1	89.6	pg/mL
		Proinflammatory Panel 1(human) Control 2	18	pg/mL
		Proinflammatory Panel 1(human) Control 3	2.72	pg/mL

Controls tested may not be the same lot as shipped.

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Standard Curve Data:

hu IFN- γ - Spot 1			hu IL-1 β - Spot 2			hu IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV
1360	245,000	2.0	561	1,620,000	2.9	1430	1,230,000	1.9
340	62,400	2.3	140	418,000	3.7	358	338,000	1.7
85.0	16,600	2.0	35.1	111,000	1.6	89.4	98,800	1.8
21.3	4,600	3.0	8.77	29,700	1.7	22.3	26,200	2.6
5.31	1,490	2.9	2.19	8,740	2.2	5.59	7,400	3.3
1.33	712	3.7	0.548	3,340	2.7	1.40	2,190	2.3
0.332	501	5.1	0.137	1,910	2.8	0.349	927	4.1
0.00	427	7.2	0.00	1,450	3.5	0.00	477	7.0

hu IL-4 - Spot 4			hu IL-6 - Spot 5			hu IL-8 - Spot 6		
Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV
244	938,000	3.5	697	1,430,000	3.0	576	678,000	2.6
61.0	274,000	3.6	174	327,000	2.5	144	172,000	1.9
15.3	79,800	4.1	43.6	76,300	1.8	36.0	46,200	1.9
3.81	21,300	5.0	10.9	18,600	2.5	9.00	12,100	2.5
0.953	5,590	3.2	2.72	4,860	2.8	2.25	3,420	2.7
0.238	1,590	4.1	0.681	1,370	2.5	0.563	1,080	2.3
0.0596	537	6.3	0.170	489	5.1	0.141	497	4.9
0.00	190	13.0	0.00	202	12.0	0.00	303	7.9

hu IL-10 - Spot 7			hu IL-12p70 - Spot 8			hu IL-13 - Spot 9		
Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV
359	615,000	1.6	482	384,000	4.2	478	726,000	3.0
89.8	173,000	1.9	121	113,000	2.7	120	117,000	2.7
22.4	48,300	2.2	30.1	31,100	3.2	29.9	15,700	2.4
5.61	12,800	3.1	7.53	8,580	4.5	7.47	2,460	3.7
1.40	3,640	2.0	1.88	2,380	4.4	1.87	708	4.0
0.351	1,220	2.5	0.471	853	6.1	0.467	308	7.9
0.0876	599	4.6	0.118	477	16.0	0.117	223	13.0
0.00	393	7.7	0.00	344	18.0	0.00	194	13.0

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hu TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
364	378,000	2.8
91.0	87,000	3.0
22.8	23,400	2.4
5.69	6,120	4.2
1.42	1,990	2.8
0.355	835	6.7
0.0889	529	8.2
0.00	453	8.0

Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0046615	2-8°C	31 Jan 2020
Anti-hu IFN- γ Antibody	D0081003	2-8°C	30 Nov 2019
Anti-hu IL-1 β Antibody	D0081004	2-8°C	30 Nov 2019
Anti-hu IL-2 Antibody	D0081011	2-8°C	31 Dec 2019
Anti-hu IL-4 Antibody	D0081005	2-8°C	30 Nov 2019
Anti-hu IL-6 Antibody	D0081006	2-8°C	30 Nov 2019
Anti-hu IL-8 Antibody	D0080749	2-8°C	31 May 2019
Anti-hu IL-10 Antibody	D0081007	2-8°C	30 Nov 2019
Anti-hu IL-12p70 Antibody	D0081008	2-8°C	30 Nov 2019
Anti-hu IL-13 Antibody	D0080922	2-8°C	30 Sep 2019
Anti-hu TNF- α Antibody	D0081002	2-8°C	31 Oct 2019
Proinflammatory Panel 1(human) Calibrator Blend	A0080145	2-8°C	31 Aug 2022
Diluent 2	M0020096	$\leq$ -10°C	30 Nov 2019
Diluent 3	M0030078	$\leq$ -10°C	31 Jan 2020
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(human) Control 1	Not Kit Specific
Proinflammatory Panel 1(human) Control 2	Not Kit Specific
Proinflammatory 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
Review/Approval	Dawn Stollar	Quality Assurance		20 SEP 2017