

CERTIFICATE OF ANALYSIS

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Product Description: V-PLEX® and V-PLEX Plus Angiogenesis Panel 1 (human) Kit
Kit Catalog Numbers: K15190-Series; K151RZ-Series; K151KW-Series; K151MD-Series; K151ME-Series; K151LT-Series; K151LU-Series
Kit Lot Number: K0081528
Expiration Date: 31 May 2022

Acceptance Data/ Percent Recovery Specifications:

Spot	Name	Calibrator		Angiogenesis Control 1		Angiogenesis Control 2		Angiogenesis Control 3	
		Recovery	CV	Recovery	CV	Recovery	CV	Recovery	CV
1	VEGF-A	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
2	VEGF-C	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
3	VEGF-D	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
4	Tie-2	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
5	Flt-1	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
6	PlGF	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
7	bFGF	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%

Spot	Name	LLOQ			ULOQ		
		Value	Recovery	CV	Value	Recovery	CV
1	VEGF-A	5.00	80% - 120%	< 20%	1510	80% - 120%	< 20%
2	VEGF-C	146	80% - 120%	< 20%	17500	80% - 120%	< 20%
3	VEGF-D	67.1	80% - 120%	< 20%	18800	80% - 120%	< 20%
4	Tie-2	396	80% - 120%	< 20%	63400	80% - 120%	< 20%
5	Flt-1	10.0	80% - 120%	< 25%	6410	80% - 120%	< 20%
6	PlGF	1.50	80% - 120%	< 25%	800	80% - 120%	< 25%
7	bFGF	2.60	80% - 120%	< 25%	1780	80% - 120%	< 20%

Acceptance Data/ Non Specific Binding Specifications:

Spot	Name	VEGF-A	VEGF-C	VEGF-D	Tie-2	Flt-1
1	VEGF-A	NA	< 0.5%	< 0.5%	< 0.5%	< 10.0%
2	VEGF-C	< 0.5%	NA	< 0.5%	< 0.5%	< 0.5%
3	VEGF-D	< 0.5%	< 5.0%	NA	< 0.5%	< 0.5%
4	Tie-2	< 0.5%	< 0.5%	< 0.5%	NA	< 0.5%
5	Flt-1	< 10.0%	< 5.0%	< 0.5%	< 0.5%	NA
6	PlGF	< 0.5%	< 0.5%	< 0.5%	< 0.5%	< 0.5%
7	bFGF	< 0.5%	< 0.5%	< 0.5%	< 0.5%	< 0.5%

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Spot	Name	PIGF	bFGF
1	VEGF-A	< 0.5%	< 0.5%
2	VEGF-C	< 0.5%	< 0.5%
3	VEGF-D	< 0.5%	< 0.5%
4	Tie-2	< 0.5%	< 0.5%
5	Flt-1	< 0.5%	< 0.5%
6	PIGF	NA	< 0.5%
7	bFGF	< 0.5%	NA

Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	VEGF-A	20X Calibrator	46700	pg/mL
		Angiogenesis Control 1	538	pg/mL
		Angiogenesis Control 2	99.8	pg/mL
		Angiogenesis Control 3	24.8	pg/mL
2	VEGF-C	20X Calibrator	534000	pg/mL
		Angiogenesis Control 1	6950	pg/mL
		Angiogenesis Control 2	1840	pg/mL
		Angiogenesis Control 3	614	pg/mL
3	VEGF-D	20X Calibrator	551000	pg/mL
		Angiogenesis Control 1	6530	pg/mL
		Angiogenesis Control 2	1060	pg/mL
		Angiogenesis Control 3	133	pg/mL
4	Tie-2	20X Calibrator	1920000	pg/mL
		Angiogenesis Control 1	20200	pg/mL
		Angiogenesis Control 2	6770	pg/mL
		Angiogenesis Control 3	763	pg/mL
5	Flt-1	20X Calibrator	187000	pg/mL
		Angiogenesis Control 1	1800	pg/mL
		Angiogenesis Control 2	214	pg/mL
		Angiogenesis Control 3	32	pg/mL
6	PIGF	20X Calibrator	22500	pg/mL
		Angiogenesis Control 1	231	pg/mL
		Angiogenesis Control 2	53.5	pg/mL
		Angiogenesis Control 3	15.9	pg/mL
7	bFGF	20X Calibrator	50200	pg/mL
		Angiogenesis Control 1	567	pg/mL
		Angiogenesis Control 2	64.7	pg/mL
		Angiogenesis Control 3	7.85	pg/mL

Controls tested may not be the same lot as shipped.

Concentrations provided in this table refer to the stock concentration of the calibrators. For top of the standard curve concentrations, please refer to the Standard Curve Data

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Standard Curve Data:

VEGF-A - Spot 1		
Conc. pg/mL	ECL Signal	%CV
2340	1,020,000	2.8
584	247,000	3.2
146	58,400	3.2
36.5	14,300	3.2
9.12	3,860	3.5
2.28	1,110	3.8
0.570	417	6.0
0.00	186	8.5

VEGF-C - Spot 2		
Conc. pg/mL	ECL Signal	%CV
26700	667,000	5.9
6680	122,000	6.8
1670	22,600	5.9
417	5,010	5.4
104	1,500	7.3
26.1	616	5.3
6.52	384	5.4
0.00	308	3.8

VEGF-D - Spot 3		
Conc. pg/mL	ECL Signal	%CV
27600	1,330,000	6.6
6890	510,000	6.8
1720	125,000	3.1
430	25,100	5.2
108	5,910	5.9
26.9	1,610	8.6
6.73	604	13.0
0.00	256	23.0

Tie-2 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
96000	106,000	3.6
24000	25,000	4.4
6000	6,160	4.4
1500	1,670	4.6
375	605	4.7
93.8	338	12.0
23.4	266	6.4
0.00	245	8.6

Flt-1 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
9350	385,000	3.1
2340	97,600	3.4
584	24,400	4.6
146	6,040	3.1
36.5	1,690	3.2
9.13	558	3.5
2.28	288	4.2
0.00	207	6.6

PlGF - Spot 6		
Conc. pg/mL	ECL Signal	%CV
1130	871,000	3.6
281	181,000	3.4
70.3	37,800	3.2
17.6	8,910	1.9
4.39	2,740	5.2
1.10	1,110	13.0
0.275	649	17.0
0.00	578	24.0

bFGF - Spot 7		
Conc. pg/mL	ECL Signal	%CV
2510	782,000	4.8
628	215,000	3.6
157	55,100	5.8
39.2	13,500	4.1
9.80	3,600	5.2
2.45	986	5.3
0.613	348	6.6
0.00	135	13.0

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Components:

Description	Lot Number	Storage Temperature	Expiration Date
Angiogenesis Panel 1 (human) Plate	Z0056704	2-8°C	31 Oct 2022
Anti-hu VEGF Antibody	D0081452	2-8°C	30 Jun 2023
Anti-hu VEGF-C Antibody	D0081370	2-8°C	31 May 2023
Anti-hu VEGF-D Antibody	D0081448	2-8°C	30 Jun 2023
Anti-hu Tie-2 Antibody	D0081449	2-8°C	30 Sep 2023
Anti-hu Flt-1 Antibody	D0081516	2-8°C	30 Nov 2023
Anti-hu PIGF Antibody	D0081450	2-8°C	30 Jun 2023
Anti-hu bFGF Antibody	D0081451	2-8°C	31 Aug 2023
Angiogenesis Panel 1 (human) Calibrator Blend	A0080213	≤ -70°C	31 May 2022
MSD Blocker A	Not Kit Specific	Not Kit Specific	N/A
Diluent 7	M0070064	≤ -10°C	30 Nov 2022
Diluent 11	M0110044	≤ -10°C	30 Jun 2022
MSD Read Buffer T	Not Kit Specific	Not Kit Specific	N/A

Additional Components Included in V-PLEX Plus	
MSD Wash Buffer (20X), 100mL	Not Kit Specific
Plate Seals	Not Kit Specific
Angiogenesis Control 1	Not Kit Specific
Angiogenesis Control 2	Not Kit Specific
Angiogenesis 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	Karen Hamilla	Quality		28 OCT 2020