

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
Kit Lot Number: K0081129
Expiration Date: 31 Jul 2019

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	hu VEGF	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
2	hu VEGF-C	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
3	hu VEGF-D	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
4	hu Tie-2	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
5	hu Flt-1	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
6	hu PIGF	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%
7	hu bFGF	80% - 120%	< 20%	75% - 125%	< 25%	75% - 125%	< 25%	75% - 125%	< 25%

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

Acceptance Data/ Non Specific Binding Specifications:

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

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

Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	hu VEGF	20X Calibrator	49000	pg/mL
		Angiogenesis Control 1	437	pg/mL
		Angiogenesis Control 2	88.9	pg/mL
		Angiogenesis Control 3	16	pg/mL
2	hu VEGF-C	20X Calibrator	492000	pg/mL
		Angiogenesis Control 1	5710	pg/mL
		Angiogenesis Control 2	1580	pg/mL
		Angiogenesis Control 3	366	pg/mL
3	hu VEGF-D	20X Calibrator	568000	pg/mL
		Angiogenesis Control 1	7070	pg/mL
		Angiogenesis Control 2	990	pg/mL
		Angiogenesis Control 3	94.4	pg/mL
4	hu Tie-2	20X Calibrator	1840000	pg/mL
		Angiogenesis Control 1	18700	pg/mL
		Angiogenesis Control 2	6320	pg/mL
		Angiogenesis Control 3	427	pg/mL
5	hu Flt-1	20X Calibrator	196600	pg/mL
		Angiogenesis Control 1	2320	pg/mL
		Angiogenesis Control 2	298	pg/mL
		Angiogenesis Control 3	26.3	pg/mL
6	hu PlGF	20X Calibrator	24200	pg/mL
		Angiogenesis Control 1	253	pg/mL
		Angiogenesis Control 2	61	pg/mL
		Angiogenesis Control 3	12.2	pg/mL
7	hu bFGF	20X Calibrator	49800	pg/mL
		Angiogenesis Control 1	534	pg/mL
		Angiogenesis Control 2	60.9	pg/mL
		Angiogenesis Control 3	5.5	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:

hu VEGF - Spot 1		
Conc. pg/mL	ECL Signal	%CV
2450	605,000	2.5
613	121,000	2.6
153	24,300	2.3
38.3	5,460	2.5
9.57	1,510	4.3
2.39	512	4.3
0.598	272	5.4
0.00	190	5.3

hu VEGF-C - Spot 2		
Conc. pg/mL	ECL Signal	%CV
24600	648,000	4.1
6150	108,000	4.1
1540	20,200	4.9
384	4,510	5.2
96.1	1,330	3.6
24.0	546	4.2
6.01	359	4.5
0.00	294	3.3

hu VEGF-D - Spot 3		
Conc. pg/mL	ECL Signal	%CV
28400	716,000	4.3
7100	261,000	3.5
1780	57,600	4.2
444	10,800	5.5
111	2,510	4.9
27.7	778	8.7
6.93	391	13.0
0.00	287	29.0

hu Tie-2 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
92000	154,000	3.8
23000	35,200	3.6
5750	8,630	3.1
1440	2,280	4.0
359	748	4.3
89.8	373	4.6
22.5	281	6.5
0.00	255	6.3

hu Flt-1 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
9830	463,000	2.5
2460	118,000	2.7
614	29,200	2.6
154	7,230	3.7
38.4	1,960	2.5
9.60	627	3.2
2.40	296	6.8
0.00	191	6.0

hu PIGF - Spot 6		
Conc. pg/mL	ECL Signal	%CV
1210	690,000	3.2
303	168,000	2.2
75.6	39,600	1.9
18.9	9,700	1.6
4.73	2,820	3.1
1.18	1,050	5.2
0.295	580	9.4
0.00	471	18.0

hu bFGF - Spot 7		
Conc. pg/mL	ECL Signal	%CV
2490	904,000	2.2
623	249,000	3.6
156	63,600	3.4
38.9	15,500	2.9
9.73	4,070	3.4
2.43	1,110	3.0
0.608	384	6.0
0.00	153	6.2

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Components:

Description	Lot Number	Storage Temperature	Expiration Date
Angiogenesis Panel 1 (human) Plate	Z0056395	2-8°C	30 Apr 2021
Anti-hu VEGF Antibody	D0080912	2-8°C	31 Jul 2019
Anti-hu VEGF-C Antibody	D0081195	2-8°C	31 May 2022
Anti-hu VEGF-D Antibody	D0081191	2-8°C	30 Apr 2022
Anti-hu Tie-2 Antibody	D0081192	2-8°C	31 May 2022
Anti-hu Flt-1 Antibody	D0081193	2-8°C	31 Jul 2022
Anti-hu PIGF Antibody	D0081101	2-8°C	31 Jan 2022
Anti-hu bFGF Antibody	D0081194	2-8°C	31 May 2022
Angiogenesis Panel 1 (human) Calibrator Blend	A0080185	≤ -70°C	31 Mar 2021
Blocker A	Not Kit Specific	Not Kit Specific	N/A
Diluent 7	M0070057	≤ -10°C	31 May 2021
Diluent 11	M0110038	≤ -10°C	31 Jul 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), 100mL	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	Dawn Stollar	Quality Assurance		28 FEB 2019