

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: K0081200
Expiration Date: 31 Mar 2021

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%

* See Additional Comments.

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	549,000	2.1
613	116,000	2.7
153	24,300	2.3
38.3	5,690	2.6
9.57	1,560	3.5
2.39	522	2.4
0.598	265	5.0
0.00	178	6.1

hu VEGF-C - Spot 2		
Conc. pg/mL	ECL Signal	%CV
24600	541,000	5.1
6150	95,800	7.1
1540	17,800	7.3
384	4,140	4.2
96.1	1,240	5.1
24.0	504	2.9
6.01	332	5.1
0.00	264	4.9

hu VEGF-D - Spot 3		
Conc. pg/mL	ECL Signal	%CV
28400	656,000	3.2
7100	239,000	4.9
1780	53,700	5.7
444	10,400	8.1
111	2,450	7.3
27.7	755	7.2
6.93	342	11.0
0.00	214	19.0

hu Tie-2 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
92000	130,000	4.9
23000	30,900	4.5
5750	7,650	4.2
1440	2,050	3.9
359	701	7.0
89.8	346	5.4
22.5	256	7.8
0.00	241	11.0

hu Flt-1 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
9830	420,000	2.0
2460	107,000	1.5
614	26,800	2.9
154	6,650	3.0
38.4	1,850	3.8
9.60	593	3.1
2.40	274	5.8
0.00	176	3.8

hu PIGF - Spot 6		
Conc. pg/mL	ECL Signal	%CV
1210	671,000	2.4
303	165,000	1.6
75.6	39,300	1.8
18.9	9,780	2.0
4.73	2,810	3.2
1.18	1,040	5.6
0.295	561	8.0
0.00	408	12.0

hu bFGF - Spot 7		
Conc. pg/mL	ECL Signal	%CV
2490	778,000	3.1
623	219,000	3.4
156	56,400	6.2
38.9	14,300	3.5
9.73	3,860	4.5
2.43	1,040	5.9
0.608	359	5.7
0.00	138	11.0

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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	D0081236	2-8°C	30 Jun 2022
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

Additional Comments:

	Assay	Spot	Specification	Comment
1	hu VEGF-D	3	Control Conc.	% Recovery for Control 2 = 71.8%

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		12 APR 2019