

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;
Kit Lot Number: K0081257
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	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	PIGF	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	PIGF	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	PIGF	< 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	b FGF
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	b FGF	< 0.5%	NA

Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	VEGF-A	20X Calibrator	49000	pg/mL
		Angiogenesis Control 1	444	pg/mL
		Angiogenesis Control 2	89.4	pg/mL
		Angiogenesis Control 3	16.6	pg/mL
2	VEGF-C	20X Calibrator	492000	pg/mL
		Angiogenesis Control 1	5710	pg/mL
		Angiogenesis Control 2	1560	pg/mL
		Angiogenesis Control 3	380	pg/mL
3	VEGF-D	20X Calibrator	568000	pg/mL
		Angiogenesis Control 1	6720	pg/mL
		Angiogenesis Control 2	896	pg/mL
		Angiogenesis Control 3	92.2	pg/mL
4	Tie-2	20X Calibrator	1840000	pg/mL
		Angiogenesis Control 1	20000	pg/mL
		Angiogenesis Control 2	6480	pg/mL
		Angiogenesis Control 3	444	pg/mL
5	Flt-1	20X Calibrator	196600	pg/mL
		Angiogenesis Control 1	2310	pg/mL
		Angiogenesis Control 2	291	pg/mL
		Angiogenesis Control 3	27	pg/mL
6	PIGF	20X Calibrator	24200	pg/mL
		Angiogenesis Control 1	260	pg/mL
		Angiogenesis Control 2	61.6	pg/mL
		Angiogenesis Control 3	12.2	pg/mL
7	bFGF	20X Calibrator	49800	pg/mL
		Angiogenesis Control 1	559	pg/mL
		Angiogenesis Control 2	62.7	pg/mL
		Angiogenesis Control 3	5.88	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
2450	522,000	3.6
613	115,000	2.1
153	24,300	3.0
38.3	5,690	2.3
9.57	1,570	4.1
2.39	533	3.8
0.598	264	5.4
0.00	189	22.0

VEGF-C - Spot 2		
Conc. pg/mL	ECL Signal	%CV
24600	506,000	4.0
6150	90,900	4.8
1540	17,800	5.3
384	4,040	5.4
96.1	1,260	8.1
24.0	524	3.9
6.01	348	4.7
0.00	283	20.0

VEGF-D - Spot 3		
Conc. pg/mL	ECL Signal	%CV
28400	1,330,000	5.3
7100	537,000	6.6
1780	135,000	5.3
444	28,600	7.3
111	6,710	7.3
27.7	1,780	8.1
6.93	596	8.1
0.00	216	25.0

Tie-2 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
92000	123,000	2.5
23000	28,800	3.6
5750	7,160	3.2
1440	1,890	3.1
359	682	5.5
89.8	375	7.9
22.5	294	9.3
0.00	270	23.0

Flt-1 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
9830	322,000	2.9
2460	82,600	2.5
614	20,800	3.3
154	5,140	2.7
38.4	1,470	4.0
9.60	525	6.8
2.40	292	8.8
0.00	202	17.0

PlGF - Spot 6		
Conc. pg/mL	ECL Signal	%CV
1210	746,000	2.7
303	186,000	2.1
75.6	43,200	3.0
18.9	10,500	2.6
4.73	3,030	5.3
1.18	1,170	17.0
0.295	704	27.0
0.00	527	43.0

bFGF - Spot 7		
Conc. pg/mL	ECL Signal	%CV
2490	680,000	3.7
623	197,000	3.3
156	50,800	5.0
38.9	12,800	3.7
9.73	3,460	7.4
2.43	1,100	12.0
0.608	491	18.0
0.00	268	40.0

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Components:

Description	Lot Number	Storage Temperature	Expiration Date
Angiogenesis Panel 1 (human) Plate	Z0056522	2-8°C	31 Oct 2021
Anti-hu VEGF Antibody	D0081236	2-8°C	30 Jun 2022
Anti-hu VEGF-C Antibody	D0081237	2-8°C	30 Jun 2022
Anti-hu VEGF-D Antibody	D0081315	2-8°C	30 Nov 2022
Anti-hu Tie-2 Antibody	D0081233	2-8°C	30 Jun 2022
Anti-hu Flt-1 Antibody	D0081256	2-8°C	30 Nov 2022
Anti-hu PIGF Antibody	D0081234	2-8°C	30 Jun 2022
Anti-hu bFGF Antibody	D0081235	2-8°C	30 Jun 2022
Angiogenesis Panel 1 (human) Calibrator Blend	A0080185	≤ -70°C	31 Mar 2021
MSD Blocker A	Not Kit Specific	Not Kit Specific	N/A
Diluent 7	M0070057	≤ -10°C	31 May 2021
Diluent 11	M0110040	≤ -10°C	30 Sep 2021
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		20 AUG 2019