

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: K0081157

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 b FGF	< 0.5%	< 0.5%	< 0.5%	< 0.5%	< 0.5%

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Spot	Name	hu PIGF	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 PIGF	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 PIGF	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	719,000	2.5
613	130,000	2.1
153	24,900	3.2
38.3	5,490	2.9
9.57	1,550	1.9
2.39	531	3.2
0.598	293	3.2
0.00	205	8.2

hu VEGF-C - Spot 2		
Conc. pg/mL	ECL Signal	%CV
24600	636,000	5.0
6150	107,000	5.2
1540	19,800	5.1
384	4,370	5.4
96.1	1,310	4.8
24.0	544	3.5
6.01	349	4.2
0.00	279	4.0

hu VEGF-D - Spot 3		
Conc. pg/mL	ECL Signal	%CV
28400	581,000	4.1
7100	193,000	3.3
1780	40,200	4.4
444	7,300	5.4
111	1,720	7.0
27.7	562	9.4
6.93	305	14.0
0.00	201	19.0

hu Tie-2 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
92000	173,000	4.3
23000	40,500	3.9
5750	10,300	3.0
1440	2,740	4.4
359	915	3.1
89.8	465	3.1
22.5	350	3.9
0.00	311	3.5

hu Flt-1 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
9830	573,000	2.2
2460	145,000	1.9
614	36,600	1.6
154	8,950	1.9
38.4	2,400	1.5
9.60	711	3.2
2.40	298	4.7
0.00	158	4.5

hu PIGF - Spot 6		
Conc. pg/mL	ECL Signal	%CV
1210	700,000	3.7
303	175,000	2.0
75.6	41,200	1.8
18.9	10,100	3.0
4.73	2,940	4.3
1.18	1,120	9.0
0.295	643	11.0
0.00	502	16.0

hu bFGF - Spot 7		
Conc. pg/mL	ECL Signal	%CV
2490	886,000	2.2
623	237,000	3.5
156	60,000	2.9
38.9	14,800	4.3
9.73	3,960	4.4
2.43	1,110	6.8
0.608	382	4.6
0.00	149	10.0

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Components:

Description	Lot Number	Storage Temperature	Expiration Date
Angiogenesis Panel 1 (human) Plate	Z0056282	2-8°C	30 Nov 2020
Anti-hu VEGF Antibody	D0080912	2-8°C	31 Jul 2019
Anti-hu VEGF-C Antibody	D0081073	2-8°C	30 Sep 2021
Anti-hu VEGF-D Antibody	D0081069	2-8°C	30 Sep 2021
Anti-hu Tie-2 Antibody	D0081070	2-8°C	30 Sep 2021
Anti-hu Flt-1 Antibody	D0081071	2-8°C	31 Jul 2020
Anti-hu PIGF Antibody	D0081101	2-8°C	31 Jan 2022
Anti-hu bFGF Antibody	D0081072	2-8°C	31 Jul 2020
Angiogenesis Panel 1 (human) Calibrator Blend	A0080185	≤ -70°C	31 Mar 2021
Blocker A	Not Kit Specific	Not Kit Specific	N/A
Diluent 7	M0070053	≤ -10°C	31 Jul 2020
Diluent 11	M0110035	≤ -10°C	31 Dec 2020
MSD Read Buffer T	Not Kit Specific	Not Kit Specific	N/A

Additional Components Included in V-PLEX Plus	
MSD Wash Buffer (20X), 1000mL	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	Dawn Stollar	Quality Assurance		19 DEC 2018