



## CERTIFICATE OF ANALYSIS

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**Product Description:** V-PLEX® and V-PLEX Plus Proinflammatory Panel 1 (NHP) Kit  
**Kit Catalog Numbers:** K15056-series  
**Kit Lot Number:** K0080809  
**Expiration Date:** 30 Apr 2019

### Acceptance Data/ Percent Recovery Specifications:

Spot	Name	Calibrator		Proinflammatory Panel 1 (human) Control 1		Proinflammatory Panel 1 (human) Control 2		Proinflammatory Panel 1 (human) Control 3	
		Recovery	CV	Recovery	CV	Recovery	CV	Recovery	CV
1	NHP IFN- $\gamma$	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
2	NHP IL-1 $\beta$	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
3	NHP IL-2	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
4	NHP IL-4	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
5	NHP IL-6	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
6	NHP IL-8	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
7	NHP IL-10	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%

Spot	Name	LLOQ			ULOQ		
		Value	Recovery	CV	Value	Recovery	CV
1	NHP IFN- $\gamma$	7.47	80% - 120%	< 20%	938	80% - 120%	< 20%
2	NHP IL-1 $\beta$	2.14	80% - 120%	< 20%	375	80% - 120%	< 20%
3	NHP IL-2	0.890	80% - 120%	< 20%	938	80% - 120%	< 20%
4	NHP IL-4	0.450	80% - 120%	< 20%	158	80% - 120%	< 20%
5	NHP IL-6	1.58	80% - 120%	< 20%	488	80% - 120%	< 20%
6	NHP IL-8	1.13	80% - 120%	< 20%	375	80% - 120%	< 20%
7	NHP IL-10	0.680	80% - 120%	< 20%	233	80% - 120%	< 20%



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### Acceptance Data/ Non Specific Binding Specifications:

Spot	Name	NSB Spec
1	NHP IFN- $\gamma$	< 1.0%
2	NHP IL-1 $\beta$	< 1.0%
3	NHP IL-2	< 1.0%
4	NHP IL-4	< 1.0%
5	NHP IL-6	< 1.0%
6	NHP IL-8	< 1.0%
7	NHP IL-10	< 1.0%



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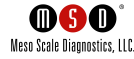
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### Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	NHP IFN- $\gamma$	Calibrator	1400	pg/mL
		Proinflammatory Panel 1 (human) Control 1	682	pg/mL
		Proinflammatory Panel 1 (human) Control 2	183	pg/mL
		Proinflammatory Panel 1 (human) Control 3	52.3	pg/mL
2	NHP IL-1 $\beta$	Calibrator	575	pg/mL
		Proinflammatory Panel 1 (human) Control 1	215	pg/mL
		Proinflammatory Panel 1 (human) Control 2	52	pg/mL
		Proinflammatory Panel 1 (human) Control 3	11	pg/mL
3	NHP IL-2	Calibrator	1530	pg/mL
		Proinflammatory Panel 1 (human) Control 1	431	pg/mL
		Proinflammatory Panel 1 (human) Control 2	42.3	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.83	pg/mL
4	NHP IL-4	Calibrator	283	pg/mL
		Proinflammatory Panel 1 (human) Control 1	101	pg/mL
		Proinflammatory Panel 1 (human) Control 2	20.3	pg/mL
		Proinflammatory Panel 1 (human) Control 3	2.88	pg/mL
5	NHP IL-6	Calibrator	765	pg/mL
		Proinflammatory Panel 1 (human) Control 1	275	pg/mL
		Proinflammatory Panel 1 (human) Control 2	50.7	pg/mL
		Proinflammatory Panel 1 (human) Control 3	9.03	pg/mL
6	NHP IL-8	Calibrator	599	pg/mL
		Proinflammatory Panel 1 (human) Control 1	223	pg/mL
		Proinflammatory Panel 1 (human) Control 2	40.4	pg/mL
		Proinflammatory Panel 1 (human) Control 3	5.91	pg/mL
7	NHP IL-10	Calibrator	374	pg/mL
		Proinflammatory Panel 1 (human) Control 1	133	pg/mL
		Proinflammatory Panel 1 (human) Control 2	27.8	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.61	pg/mL

Controls tested may not be the same lot as shipped.

The calibrator and controls for this assay contain a human recombinant cytokine calibrator sequence that is highly homologous to the non-human primate cytokine. This assay has been verified to cross-react with homologs of rhesus and cynomolgus monkeys. See Product Insert for experimental data.



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### Standard Curve Data:

NHP IFN- $\gamma$ - Spot 1		
Conc. pg/mL	ECL Signal	%CV
1400	412,000	2.0
350	115,000	1.4
87.5	29,400	2.2
21.9	7,510	1.6
5.47	2,050	2.0
1.37	726	2.3
0.342	384	6.7
0.00	258	8.0

NHP IL-1 $\beta$ - Spot 2		
Conc. pg/mL	ECL Signal	%CV
575	1,100,000	3.7
144	313,000	1.9
35.9	80,800	2.4
8.98	20,200	2.5
2.25	5,630	2.8
0.562	1,840	2.6
0.140	908	3.9
0.00	556	4.3

NHP IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
1530	1,170,000	1.9
383	333,000	2.0
95.6	89,800	2.5
23.9	22,100	2.8
5.98	6,220	2.7
1.49	1,780	3.5
0.374	705	3.9
0.00	322	10.0

NHP IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
283	976,000	3.1
70.8	311,000	3.1
17.7	85,200	3.2
4.42	22,000	2.0
1.11	5,510	2.8
0.276	1,560	2.7
0.0691	505	6.5
0.00	155	19.0

NHP IL-6 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
765	1,420,000	4.2
191	331,000	3.5
47.8	66,300	3.4
12.0	14,700	3.0
2.99	3,660	2.7
0.747	1,010	3.1
0.187	349	5.8
0.00	119	23.0

NHP IL-8 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
599	663,000	3.0
150	167,000	2.7
37.4	41,400	3.1
9.36	9,870	2.7
2.34	2,850	2.5
0.585	912	4.3
0.146	418	12.0
0.00	209	11.0

NHP IL-10 - Spot 7		
Conc. pg/mL	ECL Signal	%CV
374	745,000	2.1
93.5	220,000	1.2
23.4	58,500	1.5
5.84	14,600	2.4
1.46	4,080	3.4
0.365	1,290	4.6
0.0913	580	8.4
0.00	447	19.0



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### Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0046498	2-8°C	31 Oct 2019
Anti-hu IFN- $\gamma$ Antibody	D0080868	2-8°C	31 May 2019
Anti-hu IL-1 $\beta$ Antibody	D0080746	2-8°C	31 May 2019
Anti-hu IL-2 Antibody	D0080784	2-8°C	30 Apr 2019
Anti-hu IL-4 Antibody	D0080917	2-8°C	31 Jul 2019
Anti-hu IL-6 Antibody	D0080918	2-8°C	31 Jul 2019
Anti-hu IL-8 Antibody	D0080749	2-8°C	31 May 2019
Anti-hu IL-10 Antibody	D0080869	2-8°C	31 May 2019
Proinflammatory Panel 1 (human) Calibrator Blend	A0080127	2-8°C	30 Apr 2022
Diluent 2	M0020095	$\leq$ -10°C	30 Sep 2019
Diluent 3	M0030076	$\leq$ -10°C	30 Sep 2019
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
Proinflammatory Panel 1 (human) Control 1	Not Kit Specific
Proinflammatory Panel 1 (human) Control 2	Not Kit Specific
Proinflammatory Panel 1 (human) 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		07 JUN 2017