

**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:** K0080788

**Expiration Date:** 31 May 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%
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%
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%

**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%
5	NHP IL-6	< 1.0%
6	NHP IL-8	< 1.0%
7	NHP IL-10	< 1.0%

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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
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.

**Standard Curve Data:**

NHP IFN- $\gamma$ - Spot 1			NHP IL-1 $\beta$ - Spot 2			NHP IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV
1400	368,000	1.6	575	1,120,000	2.6	1530	1,190,000	1.8
350	101,000	1.5	144	309,000	1.9	383	334,000	1.6
87.5	25,500	2.9	35.9	78,800	1.6	95.6	89,700	1.2
21.9	6,500	3.0	8.98	19,100	2.4	23.9	22,000	3.5
5.47	1,800	2.3	2.25	5,400	3.0	5.98	6,190	2.5
1.37	684	3.1	0.562	1,750	2.2	1.49	1,800	2.6
0.342	399	7.1	0.140	857	5.3	0.374	764	4.0
0.00	304	8.5	0.00	533	5.3	0.00	397	6.3

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NHP IL-6 - Spot 5			NHP IL-8 - Spot 6			NHP IL-10 - Spot 7		
Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV	Conc. pg/mL	ECL Signal	%CV
765	1,360,000	4.4	599	657,000	3.4	374	728,000	2.3
191	310,000	2.6	150	163,000	2.4	93.5	213,000	1.3
47.8	62,700	3.5	37.4	41,100	3.0	23.4	55,400	1.2
12.0	13,600	3.4	9.36	9,930	3.5	5.84	13,600	2.2
2.99	3,410	3.0	2.34	2,840	2.8	1.46	3,870	3.3
0.747	960	3.1	0.585	896	3.2	0.365	1,250	3.6
0.187	340	6.6	0.146	477	6.6	0.0913	727	12.0
0.00	134	15.0	0.00	283	12.0	0.00	498	21.0

**Components:**

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0046481	2-8°C	30 Sep 2019
Anti-hu IFN- $\gamma$ Antibody	D0080914	2-8°C	31 Jul 2019
Anti-hu IL-1 $\beta$ Antibody	D0080746	2-8°C	31 May 2019
Anti-hu IL-2 Antibody	D0080916	2-8°C	31 Aug 2019
Anti-hu IL-6 Antibody	D0080748	2-8°C	31 May 2019
Anti-hu IL-8 Antibody	D0080749	2-8°C	31 May 2019
Anti-hu IL-10 Antibody	D0080920	2-8°C	31 Jul 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	<i>Dawn Stollar</i>	19 MAY 2017