

CERTIFICATE OF ANALYSIS

Page 1 of 3

Product Description: V-PLEX® and V-PLEX Plus Proinflammatory Panel 1 (NHP) Kit
Kit Catalog Numbers: K15056-series
Kit Lot Number: K0080929
Expiration Date: 31 Jul 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- γ | 80% - 120% | < 20% | 80% - 120% | < 20% | 80% - 120% | < 20% | 80% - 120% | < 20% |
| 2 | NHP IL-1 β | 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- γ | 7.47 | 80% - 120% | < 20% | 938 | 80% - 120% | < 20% |
| 2 | NHP IL-1 β | 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- γ | < 1.0% |
| 2 | NHP IL-1 β | < 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% |

CERTIFICATE OF ANALYSIS

Stock Concentration of Material Tested :

| Spot | Name | Item | Conc | Units |
|------|-------------------|---|------|-------|
| 1 | NHP IFN- γ | Calibrator | 1500 | 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 β | Calibrator | 589 | 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 | 1490 | 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 | 721 | 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 | 553 | 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 | 365 | 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- γ - Spot 1 | | | NHP IL-1 β - 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 |
| 1500 | 388,000 | 1.8 | 589 | 1,970,000 | 1.9 | 1490 | 1,150,000 | 1.8 |
| 375 | 110,000 | 2.3 | 147 | 560,000 | 1.9 | 373 | 337,000 | 1.5 |
| 93.8 | 28,000 | 3.0 | 36.8 | 144,000 | 2.0 | 93.1 | 90,800 | 2.1 |
| 23.4 | 7,070 | 2.8 | 9.20 | 36,900 | 4.2 | 23.3 | 22,700 | 1.5 |
| 5.86 | 1,950 | 2.3 | 2.30 | 9,880 | 1.7 | 5.82 | 6,090 | 2.8 |
| 1.46 | 697 | 3.2 | 0.575 | 3,360 | 7.6 | 1.46 | 1,750 | 3.9 |
| 0.366 | 359 | 7.1 | 0.144 | 1,530 | 2.5 | 0.364 | 664 | 4.4 |
| 0.00 | 268 | 13.0 | 0.00 | 1,010 | 5.2 | 0.00 | 292 | 7.5 |

CERTIFICATE OF ANALYSIS

Page 3 of 3

| 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 |
| 721 | 1,350,000 | 4.1 | 553 | 649,000 | 2.2 | 365 | 650,000 | 1.9 |
| 180 | 319,000 | 2.9 | 138 | 178,000 | 1.9 | 91.3 | 197,000 | 1.1 |
| 45.1 | 69,000 | 3.9 | 34.6 | 43,800 | 2.4 | 22.8 | 51,800 | 2.4 |
| 11.3 | 15,700 | 3.2 | 8.64 | 10,800 | 2.3 | 5.70 | 13,000 | 2.3 |
| 2.82 | 4,100 | 2.8 | 2.16 | 2,830 | 2.1 | 1.43 | 3,500 | 1.6 |
| 0.704 | 1,130 | 2.4 | 0.540 | 823 | 2.4 | 0.356 | 1,050 | 1.7 |
| 0.176 | 396 | 5.6 | 0.135 | 316 | 4.1 | 0.0891 | 444 | 3.8 |
| 0.00 | 143 | 12.0 | 0.00 | 149 | 13.0 | 0.00 | 224 | 8.9 |


Components:

| Description | Lot Number | Storage Temperature | Expiration Date |
|--|------------------|---------------------|-----------------|
| Proinflammatory Panel 1 (human) Plate | Z0046701 | 2-8°C | 31 May 2020 |
| Anti-hu IFN-γ Antibody | D0080914 | 2-8°C | 31 Jul 2019 |
| Anti-hu IL-1β Antibody | D0080915 | 2-8°C | 31 Jul 2019 |
| Anti-hu IL-2 Antibody | D0080916 | 2-8°C | 31 Aug 2019 |
| Anti-hu IL-6 Antibody | D0080918 | 2-8°C | 31 Jul 2019 |
| Anti-hu IL-8 Antibody | D0080919 | 2-8°C | 31 Jul 2019 |
| Anti-hu IL-10 Antibody | D0080920 | 2-8°C | 31 Jul 2019 |
| Proinflammatory Panel 1 (human) Calibrator Blend | A0080141 | 2-8°C | 31 Aug 2022 |
| Diluent 2 | M0020098 | ≤ -10°C | 28 Feb 2020 |
| Diluent 3 | M0030080 | ≤ -10°C | 31 May 2020 |
| 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), 1000mL | 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 |  | 26 JAN 2018 |