

CERTIFICATE OF ANALYSIS

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Product Description: V-PLEX® and V-PLEX Plus NHP IL-7 Kit
Kit Catalog Numbers: K156RC-Series
Kit Lot Number: K0081019
Expiration Date: 31 Jul 2019

Acceptance Data/ Percent Recovery Specifications:

| Spot | Name | Calibrator | | Cytokine Panel 1 (human) Control 1 | | Cytokine Panel 1 (human) Control 2 | | Cytokine Panel 1 (human) Control 3 | |
|------|----------|------------|-------|------------------------------------|-------|------------------------------------|-------|------------------------------------|-------|
| | | Recovery | CV | Recovery | CV | Recovery | CV | Recovery | CV |
| 1 | NHP IL-7 | 80% - 120% | < 20% | 80% - 120% | < 20% | 80% - 120% | < 20% | 80% - 120% | < 20% |

| Spot | Name | LLOQ | | | ULOQ | | |
|------|----------|-------|------------|-------|-------|------------|-------|
| | | Value | Recovery | CV | Value | Recovery | CV |
| 1 | NHP IL-7 | 0.546 | 80% - 120% | < 20% | 563 | 80% - 120% | < 20% |

Stock Concentration of Material Tested :

| Spot | Name | Item | Conc | Units |
|------|----------|------------------------------------|------|-------|
| 1 | NHP IL-7 | Calibrator | 881 | pg/mL |
| | | Cytokine Panel 1 (human) Control 1 | 348 | pg/mL |
| | | Cytokine Panel 1 (human) Control 2 | 56.4 | pg/mL |
| | | Cytokine Panel 1 (human) Control 3 | 8.49 | 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 IL-7 - Spot 1 | | |
|-------------------|------------|-----|
| Conc. pg/mL | ECL Signal | %CV |
| 881 | 219,000 | 4.0 |
| 220 | 53,700 | 2.2 |
| 55.1 | 12,800 | 2.2 |
| 13.8 | 3,230 | 1.1 |
| 3.44 | 892 | 2.0 |
| 0.860 | 280 | 1.4 |
| 0.215 | 127 | 3.8 |
| 0.00 | 80 | 4.2 |

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Components:

| Description | Lot Number | Storage Temperature | Expiration Date |
|---|------------------|---------------------|-----------------|
| Human IL-7 Plate | Z0046841 | 2-8°C | 30 Nov 2020 |
| Anti-hu IL-7 Antibody | D0080888 | 2-8°C | 31 Jul 2019 |
| Cytokine Panel 1 (human) Calibrator Blend | A0080144 | 2-8°C | 31 Aug 2022 |
| Diluent 43 | M0430026 | ≤ -10°C | 31 Aug 2020 |
| Diluent 3 | M0030082 | ≤ -10°C | 31 Oct 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), 100 mL | Not Kit Specific |
| Cytokine Panel 1 (human) Control 1 | Not Kit Specific |
| Cytokine Panel 1 (human) Control 2 | Not Kit Specific |
| Cytokine 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> | 14 AUG 2018 |