

CERTIFICATE OF ANALYSIS

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Product Description: V-PLEX® and V-PLEX Plus Human IL-7 Kit
Kit Catalog Numbers: K151RC-Series
Kit Lot Number: K0081163
Expiration Date: 30 Apr 2020

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 | hu 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 | hu IL-7 | 0.546 | 80% - 120% | < 20% | 563 | 80% - 120% | < 20% |

Stock Concentration of Material Tested :

| Spot | Name | Item | Conc | Units |
|------|---------|-----------------------------------|------|-------|
| 1 | hu IL-7 | Calibrator | 819 | pg/mL |
| | | Cytokine Panel 1(human) Control 1 | 346 | pg/mL |
| | | Cytokine Panel 1(human) Control 2 | 58 | pg/mL |
| | | Cytokine Panel 1(human) Control 3 | 7.79 | pg/mL |

Controls tested may not be the same lot as shipped.

Standard Curve Data:

| hu IL-7 - Spot 1 | | |
|------------------|------------|-----|
| Conc. pg/mL | ECL Signal | %CV |
| 819 | 193,000 | 2.6 |
| 205 | 47,400 | 1.9 |
| 51.2 | 11,900 | 1.8 |
| 12.8 | 2,970 | 1.2 |
| 3.20 | 814 | 1.3 |
| 0.800 | 250 | 1.9 |
| 0.200 | 114 | 4.3 |
| 0.00 | 70 | 4.0 |

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Components:

| Description | Lot Number | Storage Temperature | Expiration Date |
|--|------------------|---------------------|-----------------|
| Human IL-7 Plate | Z0046990 | 2-8°C | 31 May 2021 |
| Anti-hu IL-7 Antibody | D0081055 | 2-8°C | 30 Apr 2020 |
| Cytokine Panel 1(human) Calibrator Blend | A0080063 | 2-8°C | 31 Jul 2020 |
| Diluent 43 | M0430029 | ≤ -10°C | 30 Apr 2021 |
| Diluent 3 | M0030085 | ≤ -10°C | 28 Feb 2021 |
| 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 |
| 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 JAN 2019 |