**Q-Plex™ Bovine Cytokine Panel 1 (5-Plex) Product Description**

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For measurement of IFNγ, IL-4, IL-10, IL-12p40, TNFα

The Q-Plex™ Bovine Cytokine Panel 1 (5-Plex) is a fully quantitative plate-based multiplex ELISA for the detection of cytokines associated with inflammation.

Production of inflammatory cytokines occurs normally to protect the host from pathogens, pain and wound healing, and growth signaling. However, excessive, or chronic production of inflammatory cytokines can damage host tissues and is associated with certain autoimmune diseases and cancers.

* Species Specificity: Bovine
* Validated Sample Type: Serum, plasma, and cell culture supernatant
* Sample Volume Required: Min 25µL (varies)
* Estimated Assay Length: 3.5 hours
* Assay Type: Sandwich
* Detection Method: Chemiluminescent
* Multiplex Format: 96-Well Solid Plate
* Catalog #: 112333BV

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| **Analyte** | **Assay Type** | **Calibrator Range** | **Upper Limit of Quantification (ULOQ)** | **Lower Limit of Quantification (LLOQ)** | **Limit of Detection** | **Precision\* (Inter-assay)** | **Precision\* (Intra-assay)** | **Average\* Linearity** |
| IFNγ | Sandwich | 1,650-2.94 (pg/mL) | 1,155 (pg/mL) | 2.94 (pg/mL) | 1.47 (pg/mL) | 14% | 5% | 109.64% |
| IL-4 | Sandwich | 500 - 0.89 (pg/mL) | 350(pg/mL) | 0.89 (pg/mL) | 0.45 (pg/mL) | 12% | 3% | 106.97% |
| IL-10 | Sandwich | 5,000 - 8.92 (pg/mL) | 1,166 (pg/mL) | 8.92 (pg/mL) | 4.46 (pg/mL) | 10% | 3% | 108.37% |
| IL-12p40 | Sandwich | 200,000 - 356 (pg/mL) | 140,000 (pg/mL) | 356 (pg/mL) | 178 (pg/mL) | 12% | 7% | 99.93% |
| TNFα | Sandwich | 3,000 - 16.05 (pg/mL) | 2,100 (pg/mL) | 16.05 (pg/mL) | 8.03 (pg/mL) | 13% | 4% | 114.68% |