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MILLIPLEX(R) Human High Sensitivity T Cell Panel - Immunology Multiplex Assay Simultaneous analyze low levels of cytokine and chemokine biomarker with the High Sensitivity Bead-Based Multiplex Assays using the Luminex technology, in human serum, plasma and cell culture samples.

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Unit EA

Description

"Cytokines are immunomodulatory polypeptides that play key roles in both adaptive and innate immune responses. A generic term, ""cytokines"" includes myokines (produced by muscle cells), lymphokines (produced by activated Th cells), interleukins (acting as mediators between T cells) and chemokines (responsible for T-cell migration). One of the regulatory mechanisms of the immune system, cytokines act at the recognition, activation, or effector phases of an immune response, modulating the development and functional activities of the subtypes of T cells, B cells and myeloid cells. Consequently, research involving cytokines plays a significant role in achieving a deeper understanding of the immune system and its multi-faceted response to most antigens, especially those responses that make up the inflammatory process. Low levels of inflammation are involved in many clinical and sub-clinical disease states, such as autoimmune disease, cardiovascular disease, diabetes, neurological disorders, and cancer. Measuring picogram levels of cytokines, therefore, is critical for understanding the pathogenesis of these diseases. The MILLIPLEX(R) Human High Sensitivity T Cell Magnetic Bead Panel is to be used for the simultaneous quantification of any or all of the following analytes in human plasma, serum, and cell/tissue culture supernatant samples: Fractalkine, GM-CSF, IFNgamma, IL-1beta, IL-2, IL-4, IL-5, IL-6, IL-7, IL-8, IL-10, IL-12 (p70), IL-13, IL-17A, IL-21, IL-23, ITAC, MIP-1alpha, MIP-1beta, MIP-3alpha and TNFalpha. The Luminex(R) xMAP(R) platform uses a magnetic bead immunoassay format for ideal speed and sensitivity to quantitate multiple analytes simultaneously, dramatically improving productivity while conserving valuable sample volume. Panel Type: Cytokines/Chemokines"