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Luminex-Based Multiplex Cytokine Analysis

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ABSTRACT

Multiplexed kit "Mouse High Sensitivity T Cell Magnetic Bead Panel" allows a Simultaneous analyze low levels of cytokine and chemokine biomarker with the High Sensitivity Bead-Based Multiplex Assays using the Luminex technology, in mouse serum, plasma and cell culture samples.

ATTACHMENTS

k4dub48if.docx

MATERIALS

Materials

- Mouse High Sensitivity T Cell Magnetic Bead Panel" (MHSTCMAG-70K, MILLIPLEX, EMD Millipore Corp., Billerica, MA, USA)
- FLEXMAP 3D® instrument (Luminex Corp., Austin, TX, USA)

Luminex-Based Multiplex Cytokine Analysis

1 Measure Cytokines from murine plasma samples, including IFN-γ, IL-1β, IL-2, IL-4, IL-6, IL-10, IL-17A, and TNF-α simultaneously using the multiplexed kit "Mouse High Sensitivity T Cell Magnetic Bead Panel" (MHSTCMAG-70K, MILLIPLEX, EMD Millipore Corp., Billerica, MA, USA).

2 Perform the assay according to the manufacturer's instructions with an Overnight incubation step (17 hours) at 4 °C.

3 Analyze samples as single values and use two controls with corresponding acceptance ranges, provided with the kit, for quality control purposes.

4 Perform the readout on a FLEXMAP 3D® instrument (Luminex Corp., Austin, TX, USA).

5 Acquire data using Luminex xPONENT® software (version 4.3) and determine mean fluorescence intensity (MFI).

6 Use the Bio-Plex Manager™ software (version 6.2) (Bio-Rad, Hercules, CA, USA) for back-calculation of unknown cytokine concentrations.