

# Analyse nearly 100 cytokines using two cytokine panels

CYTOKINES, CHEMOKINES and growth factors are key mediators of immune system function, capable of signalling through autocrine, paracrine and endocrine mechanisms. Their pleiotropic immunomodulatory properties allow these biomolecules to react to diverse stimuli and regulate the immune response, either promoting or inhibiting inflammation. Cytokine multiplex assays allow researchers to measure multiple cytokines, chemokines and growth factors from one small sample, saving time and resources.

The new MILLIPLEX® Human Cytokine/ Chemokine/Growth Factor Panel B (Cat. No. HCYTB-60K) offers high-quality performance and the flexibility to select any combination of analytes or a fixed premixed panel. The MILLIPLEX Human Panel B Magnetic Bead Panel is a 48-plex kit for the simultaneous quantification of any or all of the following analytes in serum or plasma samples and tissue/cell lysate and culture supernatant samples: 6Ckine, sCD137, sFAS, sFASL, APRIL, BAFF, BCA-1, CCL28, CTACK, CXCL16, ENA-78, Eotaxin-2, Eotaxin-3, GCP-2, Granzyme A, Granzyme B, HMGB1, I-309, IFNβ, IFNω, IL-11, IL-16, IL-20, IL-21, IL-23, IL-24, IL-28A, IL-29, IL-31, IL-33, IL-34, IL-35, I-TAC, LIF, Lymphotactin, MCP-2, MCP-4,

MIP-1 $\delta$ , MIP-3 $\alpha$ , MIP-3 $\beta$ , MPIF-1, Perforin, SCF, SDF-1, TARC, TPO, TRAIL and TSLP.

Like all MILLIPLEX multiplex panels, the new human cytokine panel is compatible with all Luminex® instruments, including the new xMAP® INTELLIFLEX®, FLEXMAP 3D®, Luminex 200™ and MAGPIX® systems. Use alongside MILLIPLEX Human Cytokine/ Chemokine/Growth Factor Panel A (Cat No. HCYTA-60K) to analyse nearly 100 cytokines in 50µL of sample per well. MILLIPLEX immunoassays offer a format suitable for every lab, with results that are consistent from lot to lot.

Lot-to-lot consistency is an important requirement when analysing biomarkers, with longitudinal studies of immune factors providing insight into inflammation and disease. When lot-to-lot performance is not consistent in immunoassays, longitudinal studies are not possible as changes in assay performance such as sample drift can produce confounding or misleading results, leading to incorrect conclusions. As part of the production and quality testing process, the MILLIPLEX standards and quality controls are compared to previous lots and a reference lot (our 'gold standard') to ensure lot-to-lot consistency. All data is compiled in trend charts to track lot-to-lot performance. Measuring against

a gold standard, in addition to the previous lot standard, is important to account for assay drift that can occur as new lots are produced. Maintaining stringent standard curve potency acceptance criteria is important because it preserves lot-to-lot kit performance, enabling reliable assay sensitivity and sample measurement.

The new MILLIPLEX Human Cytokine/
Chemokine/Growth Factor Panel B is a novel,
multiplexed immunoassay using Luminex
xMAP technology capable of detecting up to
48 different analytes relevant to human health
and immune regulation. With demonstrated
reliability in standard curves and sample
detection, MILLIPLEX kits offer unmatched
dependability. MILLIPLEX immunoassay kits
provide a powerful tool for examining many
sample types relevant to human disease and
critical research areas, including immunology,
drug discovery and beyond.



Learn more about these human cytokine panels at

SigmaAldrich.com/milliplex-cytokines

1 drugtargetreview.com



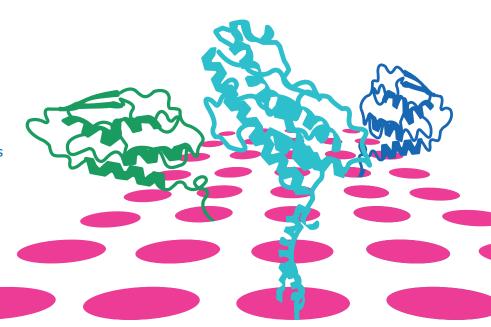


## set your sights on Cytokines

Multiplex with MILLIPLEX® Human Cytokine Panels A & B

#### MILLIPLEX® Human Cytokine Panels A and B offer you:

- The ability to analyze nearly 100 cytokines in 50 μL of sample
- The flexibility to choose any combination of analytes from each panel of 48 analytes
- Superior performance with rigorous assay development and quality control testing
- Ready-to-use reagents with everything you need in one box



#### Discover more at SigmaAldrich.com/milliplex-cytokines

© 2022 Merck KGaA, Darmstadt, Germany and/or its affiliates. All Rights Reserved. Merck, the vibrant M, Millipore, and MILLIPLEX are trademarks of Merck KGaA, Darmstadt, Germany or its affiliates. All other trademarks are the property of their respective owners. Detailed information on trademarks is available via publicly accessible resources.

45271 11/2022

For Research Use Only. Not For Use In Diagnostic Procedures.

The Life Science business of Merck operates as MilliporeSigma in the U.S. and Canada.

### Millipore<sub>®</sub>

Preparation, Separation, Filtration & Monitoring Products