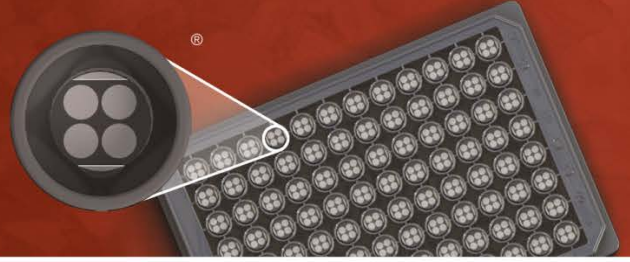
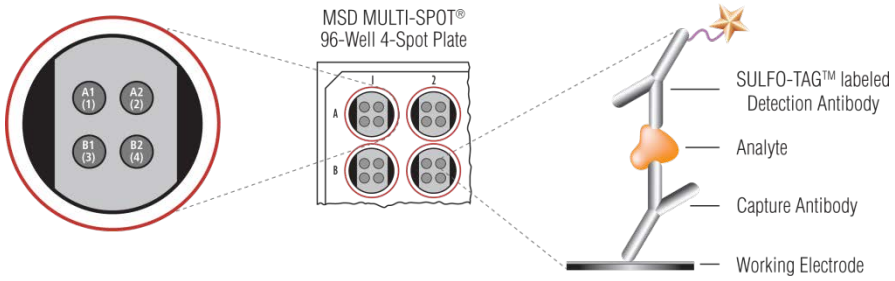
# MSD® Mouse MIP-3α Kit

For quantitative determination in mouse serum and plasma



Alzheimer's Disease
BioProcess
Cardiac
Cell Signaling
Clinical Immunology
Cytokines
Growth Factors
Hypoxia
Immunogenicity
Inflammation
Metabolic
Oncology
Toxicology
Vascular



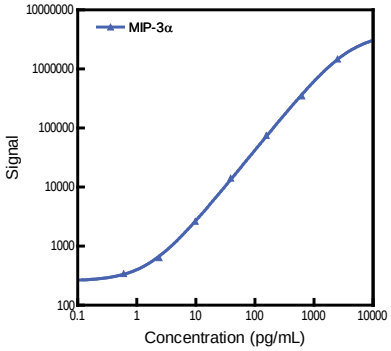

**Macrophage inflammatory protein 3 alpha (MIP-3α)** (LARC/CCL20) is a C-C chemokine with inflammatory and homeostatic functions.[1,2] Initially identified in the liver, it is expressed in lymphatic tissue, lung tissue, macrophages, dendritic cells, B- and T- lymphocytes, and eosinophilic granulocytes as well as in normal colon, pancreas, prostate, uterine cervix, and skin.[2] To date, MIP-3α is the only known ligand for the CCR6 receptor; it is also chemotactic for $CCR6^{+}$ cells such as Th17.[1-3]

MIP-3α is implicated in a broad spectrum of disorders, including colorectal cancer and tumor metastasis,[1] rheumatoid arthritis,[3] psoriasis,[4] obesity,[5] and wound healing.[6] Disrupting the MIP-3α and CCR6 interaction may ultimately prove to be a viable therapeutic strategy,[4,7] as CCR6 deletion resulted in reduced atherosclerotic lesion area and reduced macrophage presence at atherosclerotic plaque sites in models of atherogenesis.[7]

The assay is available on 96-well, 4-spot plates. Representative data from the assay is presented below.

## Assay Sensitivity

The following standard curve illustrates the dynamic range of the Mouse MIP-3α assay.




| | MIP-3α |
|---|---|
| Average LLOD (pg/mL) | 0.33 |

The lower limit of detection (LLOD) is a calculated concentration based on a signal 2.5 standard deviations above the background (zero calibrator blank).

## Specificity

To assess specificity of the MIP-3α assay, the kit was tested with the following recombinant mouse proteins: IFNγ, IL-1β, IL-2, IL-4, IL-5, IL-6, KC, IL-10, IL-12, TNFα, IL-23, GM-CSF, IL-13, VEGF, RANTES, TNF-RI, TNF-RII, IL-12/IL-23 p40, and MCP-1 at 1250 pg/mL. Less than 0.1% non-specific binding was observed with each protein.

## Catalog Numbers

| Mouse MIP-3α Kit | |
|---|---|
| **Kit Size** | **Catalog #** |
| 1 plate | K152MSD-1 |
| 5 plates | K152MSD-2 |
| 25 plates | K152MSD-4 |

## Ordering Information


MSD Customer Service
Phone: 1-301-947-2085
Fax: 1-301-990-2776
Email: CustomerService@mesoscale.com


## Company Address


MESO SCALE DISCOVERY®
A division of
Meso Scale Diagnostics, LLC.
1601 Research Boulevard
Rockville, MD 20850 USA
www.mesoscale.com®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## MSD Advantage

- **Multiplexing:** Multiple analytes can be measured in one well using typical sample volumes of 25 µL or less without compromising speed or performance
- **Large dynamic range**: Linear range of up to five logs enables the measurement of native levels of biomarkers in normal and diseased samples without multiple dilutions
- **Minimal background:** The stimulation mechanism (electricity) is decoupled from the response (light signal), minimizing matrix interference
- **Simple protocols:** Only labels bound near the electrode surface are excited, enabling assays with fewer washes
- **Flexibility:** Labels are stable, non-radioactive, and conveniently conjugated to biological molecules
- **High sensitivity and precision:** Multiple rounds of label excitation and emission enhance light levels and improve sensitivity

For a complete list of products, please visit our website at www.mesoscale.com.

## References


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4. Harper EG, et al. Th17 cytokines stimulate CCL20 expression in keratinocytes *in vitro* and *in vivo*: implications for psoriasis pathogenesis. J Invest Dermatol. 2009 Sep;129(9):2175-83.
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6. Kennedy-Crispin M, et al. Human keratinocytes' response to injury upregulates CCL20 and other genes linking anniate and adaptive immunity. J Invest Dermatol. 2012 Jan;132(1):105-13.
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