

#### DESCRIPTION

|                           |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Human  |
| <b>Specificity</b>        | Detects human CCL3/MIP-1α in Western blots. In direct ELISAs, 100% cross-reactivity with recombinant human (rh) CCL4/MIP-1β is observed. Does not cross-react with rhCCL1, 2, 5, 7, 8, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, recombinant mouse CCL1, 2, 3, 5, 6, 7, CCL9/10MIP-1γ, 11, 12, 17, 19, 20, 21, 22, 24, 25, or recombinant rat CCL20. |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2B</sub> Clone # 93342   |
| <b>Purification</b>       | Protein A or G purified from ascites   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human CCL3/MIP-1α<br>Ala27-Ala92<br>Accession # P10147   |
| <b>Conjugate</b>          | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 nm  |
| <b>Formulation</b>        | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.                                       |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

|   | Recommended Concentration       | Sample   |
|---|---------------------------------|--|
| <b>Intracellular Staining by Flow Cytometry</b> | 0.25-1 µg/10 <sup>6</sup> cells | Human peripheral blood mononuclear cells treated with LPS, fixed with paraformaldehyde, and permeabilized with saponin |

#### PREPARATION AND STORAGE

|                                |  |
|--------------------------------|--|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.                                  |
| <b>Stability &amp; Storage</b> | <b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul> |

#### BACKGROUND

The macrophage inflammatory proteins -1α and -1β were originally co-purified from medium conditioned by an LPS-stimulated murine macrophage cell line. Human MIP-1α refers to the products of several independently cloned cDNAs, including LD78, pL78, pAT464, and GOS19. These cDNAs all code for the same human protein that is a homologue of the murine MIP-1α. Mature MIP-1α and MIP-1β in both human and mouse share approximately 70% homology at the amino acid level. The MIP-1 proteins are members of the β (C-C) subfamily of chemokines.

Both MIP-1α and MIP-1β are monocyte chemoattractants *in vitro*. Additionally, the MIP-1 proteins have been reported to have chemoattractant and adhesive effects on lymphocytes, with MIP-1α and MIP-1β preferentially attracting CD8<sup>+</sup> and CD4<sup>+</sup> T cells, respectively. MIP-1α has also been shown to attract B cells as well as eosinophils. MIP-1 proteins have been reported to have multiple effects on hematopoietic precursor cells and MIP-1α has been identified as a stem cell inhibitory factor that can inhibit the proliferation of hematopoietic stem cells *in vitro* as well as *in vivo*. The functional receptor for MIP-1α has been identified as CCR1 and CCR5.

#### References:

1. Menten, P. *et al.* (2002) Cytokine Growth Factor Rev. **13**:455.

#### PRODUCT SPECIFIC NOTICES

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