

DESCRIPTION

Species Reactivity	Human
Specificity	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.
Source	Monoclonal Mouse IgG _{2B} Clone # 93342
Purification	Protein A or G purified from ascites
Immunogen	<i>E. coli</i> -derived recombinant human CCL3/MIP-1α Ala27-Ala92 Accession # P10147
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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
Intracellular Staining by Flow Cytometry	0.25-1 µg/10 ⁶ cells	Human peripheral blood mononuclear cells treated with LPS, fixed with paraformaldehyde, and permeabilized with saponin

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage **Protect from light. Do not freeze.**

- 12 months from date of receipt, 2 to 8 °C as supplied.

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⁺ and CD4⁺ 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

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc. and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.