Mouse CCL3/MIP-1α APC-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 39624

Catalog Number: IC450A

100 TESTS

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CCL3/MIP−1α in Western blots. In Western blots, approximately 25% cross-reactivity with recombinant mouse CCL4/MIP−1β is observed and no cross-reactivity with recombinant human CCL1, 2, 3, 5, 7, 8, 11, 13, 14, 15, 16, 17, 18, 21, 22, 23, 24, 25, 28, recombinant mouse CCL1, 2, 6, 7, 9/10/MIP-1γ, 11, 12, 19, 21, 22, 25, 28, recombinant rat CCL2 or CCL20 is observed.
Source	Monoclonal Rat IgG_{2A} Clone # 39624
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant mouse CCL3/MIP-1α Ala24-Ala92 Accession # P10855
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
Formulation	Supplied 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.

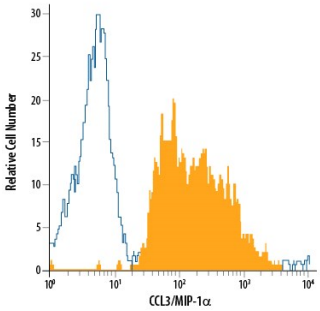
APPLICATIONS

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	10 µL/10^6 cells	See Below

DATA

Intracellular Staining by Flow Cytometry



Detection of CCL3/MIP-1α in RAW 264.7 Mouse Cell Line by Flow Cytometry. RAW 264.7 mouse monocyte/macrophage cell line treated with LPS was stained with Rat Anti-Mouse CCL3/MIP-1α APC-conjugated Monoclonal Antibody (Catalog # IC450A, filled histogram) or isotype control antibody (Catalog # IC006A, open histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.

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, two closely related but distinct proteins, were originally co-purified from medium conditioned by a LPS-stimulated murine macrophage cell line. Mature mouse CCL3/MIP-1α shares approximately 77% and 70% amino acid identity with human CCL3/MIP-1α and mouse CCL4/MIP-1β, respectively. MIP−1 proteins are expressed primarily in T cells, B cells, and monocytes after antigen or mitogen stimulation. The MIP−1 proteins are members of the β (C−C) subfamily of chemokines.

Both CCL3 and CCL4 are monocyte chemoattractants *in vitro*. Additionally, the MIP−1 proteins have been reported to have chemoattractant and adhesive effects on lymphocytes, with CCL3 and CCL4 preferentially attracting $CD8^+$ and $CD4^+$ T cells, respectively. CCL3 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 CCL3 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*. In the same assays, CCL4 was reported to be much less active. The functional receptor for CCL3 has been identified as CCR1 and CCR5.

References:

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

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