Cotton Rat CCL3/MIP-1α Antibody

Monoclonal Mouse IgG_{2A} Clone # 175024

Catalog Number: MAB1061

DESCRIPTION

Species Reactivity	Cotton Rat
Specificity	Detects cotton rat CCL3/MIP-1α in direct ELISAs. In direct ELISAs, this antibody shows approximately 50% cross-reactivity with recombinant human CCL3/MIP-1α and recombinant cotton rat CCL4/MIP-1β and no cross-reactivity with recombinant cotton rat CCL5, recombinant human CCL1, 2, 3, 4, 5, 7, 8, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, recombinant mouse CCL1, 2, 3, 4, 5, 6, 7, 8, 9/10/MIP-1γ, 11, 12, 17, 19, 20, 21, 22, 24, 25, 27, 28, or recombinant rat CCL20.
Source	Monoclonal Mouse IgG_{2A} Clone # 175024
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant cotton rat CCL3/MIP-1α Ala24-Ala92 Accession # AAL26704
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

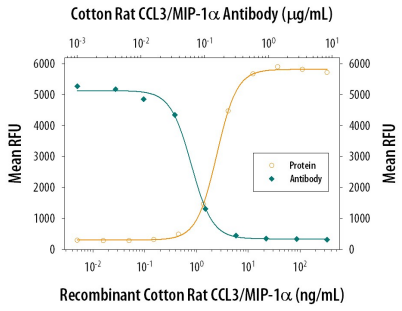
APPLICATIONS

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
Western Blot	1 µg/mL	Recombinant Cotton Rat CCL3/MIP-1α (Catalog # 1061-RM)
Neutralization	Measured by its ability to neutralize CCL3/MIP-1α-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CCR5. The Neutralization Dose (ND_{50}) is typically 0.05-0.3 µg/mL in the presence of 10 ng/mL Recombinant Cotton Rat CCL3/MIP-1α.	

DATA

Neutralization



Chemotaxis Induced by CCL3/MIP-1α and Neutralization by Cotton Rat CCL3/MIP-1α Antibody. Recombinant Cotton Rat CCL3/MIP-1α (Catalog # 1061-RM) chemoattracts the BaF3 mouse pro-B cell line transfected with human CCR5 in a dose-dependent manner (orange line). The amount of cells that migrated through to the lower chemotaxis chamber was measured by Resazurin (Catalog # AR002). Chemotaxis elicited by Recombinant Cotton Rat CCL3/MIP-1α (10 ng/mL) is neutralized (green line) by increasing concentrations of Cotton Rat CCL3/MIP-1α Monoclonal Antibody (Catalog # MAB1061). The ND_{50} is typically 0.05-0.3 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

MIP-1α is a β family (CC) chemokine and has been designated CCL3. MIP-1α and CCL4/MIP-1β, two closely related but distinct proteins, were originally purified from medium conditioned by a LPS-stimulated murine macrophage cell line. Cotton rat CCL3 cDNA encodes a 92 amino acid (aa) precursor protein with a 23 aa putative signal peptide. Mature cotton rat CCL3 shares approximately 70% amino acid identity with human CCL3. CCL3 is expressed in a wide variety of cells, including lymphocytes, fibroblasts, epithelial cells, and monocytes/macrophages. CCL3 has been shown to play an important role in the recruitment of mononuclear cells. Additionally, CCL3 has been reported to have chemoattractant and adhesive effects on lymphocytes, preferentially promoting the chemotaxis of Th1 cells. CCL3 has also been shown to attract B cells, eosinophils, and dendritic cells. In addition, CCL3 augments cytolytic activity of NK cells (1). 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*. It has been demonstrated that CCL3 can bind the chemokine receptors CCR1 and CCR5 (2).

References:

1. Robertson, M. (2002) J. Leukoc. Biol. **71**:173.
2. Zlotnik, A. *et al.* (2000) Immunity **12**:121.

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