Cotton Rat CCL3/MIP-1α Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1061

DESCRIPTION

Species Reactivity	Cotton Rat
Specificity	Detects cotton rat CCL3/MIP-1α in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant mouse MIP-1α is observed, 15% cross-reactivity with recombinant human (rh) MIP-1α is observed, less than 10% cross-reactivity with rhMIP-1β, rh6Ckine, and rhHCC-4 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
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.

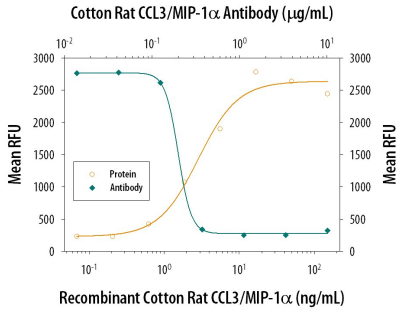
APPLICATIONS

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	0.1 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 0.1-0.4 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 Goat Anti-Cotton Rat CCL3/MIP-1α Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1061). The ND_{50} is typically 0.1-0.4 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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 MIP-1β, two closely related but distinct proteins, were originally purified from medium conditioned by a LPS-stimulated murine macrophage cell line. Cotton rat MIP-1α cDNA encodes a 92 amino acid (aa) residue precursor protein with a 23 aa putative signal peptide. Mature cotton rat MIP-1α shares approximately 70% amino acid identity with human MIP-1α. MIP-1α is expressed in a wide variety of cells, including lymphocytes, fibroblasts, and epithelial cells, as well as monocytes/macrophages.

MIP-1α has been shown to play an important role in the recruitment of mononuclear cells. Additionally, MIP-1α has been reported to have chemoattractant and adhesive effects on lymphocytes, preferentially promoting the chemotaxis of Th1 cells. MIP-1α has also been shown to attract B cells, eosinophils, and dendritic cells. In addition, MIP-1α augments cytolytic activity of NK cells (1). 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*. It has been demonstrated that MIP-1α 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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