Cotton Rat CCL4/MIP-1β Antibody

Monoclonal Mouse IgG_1 Clone # 163910

Catalog Number: MAB1024

DESCRIPTION

Species Reactivity	Cotton Rat
Specificity	Detects cotton rat CCL4/MIP-1β in Western blots.
Source	Monoclonal Mouse IgG_1 Clone # 163910
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant cotton rat CCL4/MIP-1β Ala24-Asn92 Accession # AAL16933
Endotoxin Level	<0.15 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.

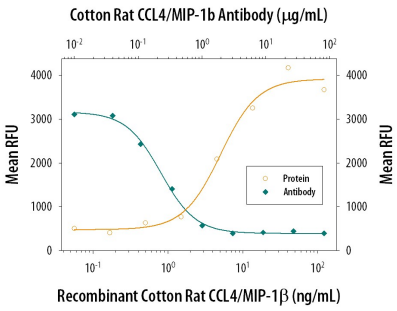
APPLICATIONS

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 CCL4/MIP-1β (Catalog # 1024-MB)
Neutralization	Measured by its ability to neutralize CCL4/MIP-1β-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with mouse CCR5. The Neutralization Dose (ND_{50}) is typically 0.4-1.6 µg/mL in the presence of 10 ng/mL Recombinant Cotton Rat CCL4/MIP-1β.	

DATA

Neutralization



Chemotaxis Induced by CCL4/MIP-1β and Neutralization by Cotton Rat CCL4/MIP-1β Antibody.

Recombinant Cotton Rat CCL4/MIP-1β (Catalog # 1024-MB) chemoattracts the BaF3 mouse pro-B cell line transfected with mouse 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 CCL4/MIP-1β (10 ng/mL) is neutralized (green line) by increasing concentrations of Mouse Anti-Cotton Rat CCL4/MIP-1β Monoclonal Antibody (Catalog # MAB1024). The ND_{50} is typically 0.4-1.6 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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Cotton Rat CCL4/MIP-1β Antibody

Monoclonal Mouse IgG_1 Clone # 163910

Catalog Number: MAB1024

BACKGROUND

CCL4, also known as macrophage inflammatory protein 1 beta (MIP-1β), is a 12 kDa β chemokine that is secreted at sites of inflammation by activated leukocytes, lymphocytes, vascular endothelial cells, and pulmonary smooth muscle cells (1, 2). CCL4 attracts a variety of immune cells to sites of microbial infection as well as to other pathologic inflammation such as allergic asthma and ischemic myocardium (3-8). A CCL4 deficiency in mice promotes the development of autoantibodies, possibly as a result of compromised regulatory T cell recruitment (6). CCL4 is secreted from activated monocytes as a heterodimer with CCL3/MIP-1α (9). The first two N-terminal amino acids (aa) can be cleaved from human CCL4 by CD26/DPPIV (10, 11). Both the full length and truncated forms exert biological activity through CCR5, and the truncated form additionally interacts with CCR1 and CCR2 (10). In humans, the ability of CCL4 to bind CCR5 inhibits the cellular entry of M-tropic HIV-1 which utilizes CCR5 as a coreceptor (2). Both forms of CCL4 block HIV-1 infection of T cells by inducing the down-regulation of CCR5 (10). Mature cotton rat CCL4 shares 75%-83% aa sequence identity with human, mouse, and rat CCL4.

References:

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