Mouse CCL9/10/MIP-1γ Antibody

Monoclonal Rat IgG_1 Clone # 62105

Catalog Number: MAB463

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CCL9/10/MIP-1γ in ELISAs and Western blots. In sandwich ELISAs, less than 0.02% cross-reactivity with recombinant human CCL3, 4, 15, 19, 20, recombinant mouse CCL3, 4, 19, or recombinant rat CCL20 is observed.
Source	Monoclonal Rat IgG_1 Clone # 62105
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant mouse CCL9/10/MIP-1γ Gln22-Gln122 Accession # P51670
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.

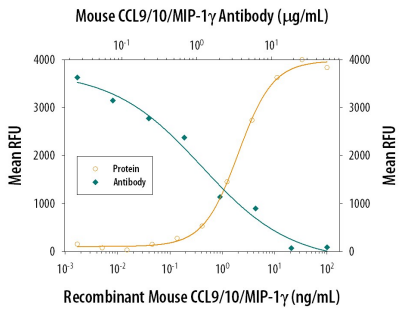
APPLICATIONS

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 Mouse CCL9/10/MIP-1γ (Catalog # 463-MG) under non-reducing conditions only
Mouse CCL9/10/MIP-1γ Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Mouse CCL9/10/MIP-1γ Antibody (Catalog # MAB463)
ELISA Detection	0.1-0.4 µg/mL	Mouse CCL9/10/MIP-1γ Biotinylated Antibody (Catalog # BAF463)
Standard		Recombinant Mouse CCL9/10/MIP-1γ (Catalog # 463-MG)
Neutralization	Measured by its ability to neutralize CCL9/10/MIP-1γ-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CCR1. The Neutralization Dose (ND_{50}) is typically 1-4 µg/mL in the presence of 0.04 µg/mL Recombinant Mouse CCL9/10/MIP-1γ.	

DATA

Neutralization



Chemotaxis Induced by CCL9/10/MIP-1γ and Neutralization by Mouse CCL9/10/MIP-1γ Antibody. Recombinant Mouse CCL9/10/MIP-1γ (Catalog # 463-MG) chemoattracts the BaF3 mouse pro-B cell line transfected with human CCR1 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 Mouse CCL9/10/MIP-1γ (0.04 µg/mL) is neutralized (green line) by increasing concentrations of Rat Anti-Mouse CCL9/10/MIP-1γ Monoclonal Antibody (Catalog # MAB463). The ND_{50} is typically 1-4 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

Mouse CCL9/10 (also named MIP-1γ and MRP-2) is an 11 kDa, secreted, monomeric polypeptide that belongs to the β (or CC) intercrine family of chemokines (1-3). Based on its activity and amino acid (aa) sequence, it is further classified as a member of the NC6 or six cysteine-containing CC subfamily of chemokines (2, 4, 5). This subfamily contains four N-terminally extended chemokines, two human (CCL15 and CCL23) and two mouse (CCL9 and CCL10). Within this subfamily, there are no human-to-rodent interspecies orthologs. Mouse CCL9/10 is synthesized as a 122 aa precursor that contains a 21 aa signal sequence and a 101 aa mature region with six cysteines. As noted, the mature region has an expanded N-terminus relative to other CC family members, and it forms a third intrachain disulfide bond with its two extra cysteines (3-7). Mouse CCL9/10 is 75% aa identical to rat CCL9/10 (8). Chemokines are known to undergo proteolytic processing to generate multiple isoforms. NC6 chemokines are usually only marginally active at full-length, but are converted to highly active forms upon N-terminal truncation. Mature CCL9, in the presence of inflammatory fluids, is naturally truncated by 28, 29 or 30 aa at the N-terminus, generating a highly active, 8 kDa, 71-73 aa CCR1 ligand. In contrast, other CCR1 ligands, CCL3/MIP-1α and CCL5/RANTES, lose their potency when proteolytically processed. CCL9/10 is constitutively secreted, and circulates as a full-length molecule. Any onset of inflammation with subsequent enzyme release may act on local NC6 chemokines, generating early, potent leukocyte chemoattractants (5, 7).

References:

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