Rat CXCL2/GROβ/MIP-2/CINC-3 Antibody

Monoclonal Mouse IgG_{2B} Clone # 123802

Catalog Number: MAB525

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat CXCL2/GROβ/MIP-2/CINC-3 in ELISAs and Western blots. In sandwich ELISAs, less than 0.5% cross-reactivity with recombinant rat (rr) CXCL3 and less than 0.1% cross-reactivity with rrCXCL1, rrCINC-2α, recombinant mouse (rm) CXCL9 or rmCXCL2 is observed. In Western blots, less than 3% cross-reactivity with recombinant human (rh) CXCL8, recombinant porcine CXCL8, or rrCINC-2α and no cross-reactivity with rrCXCL1, 3, rmCXCL1, 2, 6, 9, 10, 12, rhCXLC1, 2, 3, 5, 6, 7, 9,10, 11, 12 or 13 is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 123802
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant rat CXCL2/GROβ/MIP-2/CINC-3 Ser32-Asn100 Accession # P30348
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.

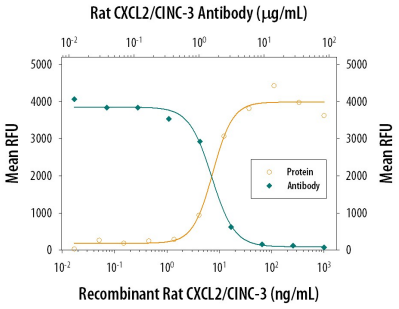
APPLICATIONS

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 Rat CXCL2/GROβ/MIP-2/CINC-3 (Catalog # 525-C3)
Rat CXCL2/CINC-3 Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Rat CXCL2/GROβ/MIP-2/CINC-3 Antibody (Catalog # MAB525)
ELISA Detection	0.1-0.4 µg/mL	Rat CXCL2/GROβ/MIP-2/CINC-3 Biotinylated Antibody (Catalog # BAF525)
Standard		Recombinant Rat CXCL2/GROβ/MIP-2/CINC-3 (Catalog # 525-C3)
Neutralization	Measured by its ability to neutralize CXCL2/GROβ/MIP-2/CINC-3-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CXCR2. The Neutralization Dose (ND_{50}) is typically 0.4-2.0 µg/mL in the presence of 0.1 µg/mL Recombinant Rat CXCL2/GROβ/MIP-2/CINC-3.	

DATA

Neutralization



Chemotaxis Induced by CXCL2/CINC-3 and Neutralization by Rat CXCL2/ CINC-3 Antibody. Recombinant Rat CXCL2/CINC-3 (Catalog # 525-C3) chemoattracts the BaF3 mouse pro-B cell line transfected with human CXCR2 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 Rat CXCL2/ CINC-3 (0.1 µg/mL) is neutralized (green line) by increasing concentrations of Mouse Anti-Rat CXCL2/CINC-3 Monoclonal Antibody (Catalog # MAB525). The ND_{50} is typically 0.4-2.0 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

Cytokine-induced neutrophil chemoattractant 3 (CINC-3) has been found to be expressed by cytokine-stimulated rat alveolar macrophages and fibroblasts. Based on its protein and DNA sequences, CINC-3 (also known as rat MIP-2, GROβ and CXCL2) is a member of the alpha (CXC) subfamily of chemokines.

CINC-3 cDNA encodes a 100 amino acid (aa) residue precursor protein with a 31 aa signal peptide that is cleaved to yield a 69 aa mature secreted protein. The protein sequence of rat CINC-3 shares approximately 88% identity with murine MIP-2. Characteristic of ELR containing CXC chemokines, CINC-3 is known to be a potent chemotactic factor for rat neutrophils *in vitro* and *in vivo*. On the basis of cross-desensitization results of the various CINC proteins, it has been postulated that rat neutrophils have at least two classes of CINC receptors: a class of CINC-3 specific receptors as well as a second common receptor shared by all CINCs.

References:

1. Nakagawa, H. *et al*. (1994) Biochem. J. **301**:545.
2. Huang, S. *et al*. (1992) Am. J. Pathol. **141**:981.