Mouse CXCL3/GROγ/CINC-2/DCIP-1 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF5568

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CXCL3/GROγ/CINC-2/DCIP-1 in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant rat CINC-2 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant mouse CXCL3/GROγ/CINC-2/DCIP-1 Ala28-Ser100 Accession # AAI17017
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.

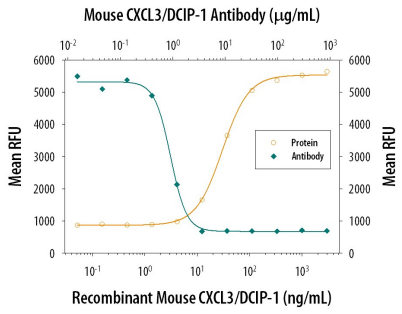
APPLICATIONS

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 Mouse CXCL3/DCIP-1 (Catalog # 5568-CA)
Neutralization	Measured by its ability to neutralize CXCL3/DCIP-1-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CXCR2. The Neutralization Dose (ND_{50}) is typically 0.5-3 µg/mL in the presence of 100 ng/mL Recombinant Mouse CXCL3/DCIP-1.	

DATA

Neutralization



Chemotaxis Induced by CXCL3/DCIP-1 and Neutralization by Mouse CXCL3/DCIP-1 Antibody. Recombinant Mouse CXCL3/DCIP-1 (Catalog # 5568-CA) 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 Mouse CXCL3/DCIP-1 (100 ng/mL) is neutralized (green line) by increasing concentrations of Sheep Anti-Mouse CXCL3/DCIP-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5568). The ND_{50} is typically 0.5-3 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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Mouse CXCL3/GROγ/CINC-2/DCIP-1 Antibody

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BACKGROUND

CXCL3 is also known as MIP-2β (macrophage inflammatory protein 2 beta), or DCIP-1 (dendritic cell inflammatory protein-1) in mouse, CINC2 (cytokine-induced neutrophil attractant 2) in rat, and GRO-γ (growth-regulated oncogene gamma) in humans (1, 2). It is an 8 kDa proinflammatory member of the CXC subfamily of heparin-binding chemokines, also called alpha chemokines (1-4). The Glu-Leu-Arg (ELR) motif near the CXCL3 N-terminus confers angiogenic properties and distinguishes it from interferon-inducible ELR^- CXC chemokines, which are angiostatic (4). ELR^+ and ELR^- chemokines use CXCR2 and CXCR3 receptors, respectively (3, 4). Mature mouse CXCL3 shares 88% and 57% amino acid (aa) sequence identity with rat and human CXCL3, respectively. Among mouse ELR^+ chemokines, it shares 82% aa sequence identity with CXCL2/GRO-β/MIP-2 and 34% - 58% with CXCL1/GRO-α/KC, CXCL5/ENA-78 and CXCL7/NAP-2. Due to their similar sequence and activity, CXCL2 and CXCL3 are sometimes referred to collectively as CXCL2/3, but are separate gene products (4-6). Mouse CXCL3 expression is induced in macrophages and early in maturation of DC by bacterial products such as lipopolysaccharides, and other inflammatory mediators (1, 7). It is chemotactic for CXCR2-expressing neutrophils, helping to recruit them to areas of inflammation (1, 7). ELR^+ chemokines also elicit endothelial cell chemotaxis, stimulating angiogenesis and playing a role in tumor development (3, 4). ELR^+ chemokines upregulated by ischemia play a role in ischemia-reperfusion injury (5, 6). A decoy receptor, DARC (Duffy antigen receptor for chemokines) competes with CXCR2 for ELR^+ chemokine binding, thus downregulating their effect (8). Neutrophil influx may also be downregulated by MMP-12, which has been found to inactivate CXCL3 and other ELR^+ chemokines by cleaving them at the ELR site (9). Over aa 28-100, mouse CXCL3 shares 87.8% aa identity with rat CINC2.

References:

1. Nolan, K. F. *et al.* (2004) J. Immunol. **172**:2201.
2. Modi, W. S. and T. Yoshimura (1999) Mol. Biol. Evol. **16**:180.
3. Vandercappellen, J. *et al.* (2008) Cancer Lett. **267**:226.
4. Strieter, R.M. *et al.* (2005) Cytokine Growth Factor Rev. **16**:593.
5. Nesmelova, I. V. *et al.* (2008) J. Biol. Chem. **283**:24155.
6. Maheshwari, A. *et al.* (2004) Fetal Pediatr. Pathol. **23**:145.
7. Furuichi, K. *et al.* (2008) Front. Biosci. **13**:4021.
8. Takano, K. and H. Nakagawa (2001) Inflamm. Res. **50**:503.
9. Horton, L. W. *et al.* (2007) Cancer Res. **67**:9791.

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