**DESCRIPTION**

**Species Reactivity**  
Mouse

**Specificity**  
Detects mouse CXCL2/MIP-2 in direct ELISAs and Western blots. In direct ELISAs, less than 10% cross-reactivity with recombinant human (rh) GROβ, recombinant mouse (rm) GROγ, rmKC and rmLIX is observed.

**Source**  
Polyclonal Goat IgG

**Purification**  
Antigen Affinity-purified

**Immunogen**  
E. coli-derived recombinant mouse CXCL2/MIP-2  
Ala28-Asn100  
Accession # P10889

**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 either lyophilized or 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

- **Immunocytochemistry**  
  5-15 μg/mL  
  See Below

- **Immunohistochemistry**  
  5-15 μg/mL  
  Perfusion fixed frozen sections of mouse thymus

- **Neutralization**  
  Measured by its ability to neutralize CXCL2/MIP-2-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CXCR2. The Neutralization Dose (ND$_{50}$) is typically 0.015-0.075 μg/mL in the presence of 2 ng/mL Recombinant Mouse CXCL2/MIP-2.

**DATA**

**Neutralization**  
Chemotaxis Induced by CXCL2/MIP-2 and Neutralization by Mouse CXCL2/MIP-2 Antibody. Recombinant Mouse CXCL2/MIP-2 (Catalog # 452-M2) chemotacts 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 CXCL2/MIP-2 (2 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Mouse CXCL2/MIP-2 Antibody (Catalog # AF-452-NA). The ND$_{50}$ is typically 0.015-0.075 μg/mL.

**Immunocytochemistry**  
CXCL2/MIP-2 in Mouse Splenocytes. CXCL2/MIP-2 was detected in immersion fixed mouse splenocytes stimulated with LPS and monensin using Goat Anti-Mouse CXCL2/MIP-2 Antibody (Catalog # AF-452-NA) at 10 μg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

**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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Macrophage Inflammatory Protein-2 (MIP-2) was originally identified as a heparin-binding protein secreted from a murine macrophage cell line in response to endotoxin stimulation. Based on its protein and DNA sequences, MIP-2 is a member of the alpha (C-X-C) subfamily of chemokines.

MIP-2 cDNA encodes a 100 amino acid residue precursor protein from which the amino-terminal 27 amino acid residues are cleaved to generate the mature MIP-2. The protein sequence of murine MIP-2 shows approximately 63% identity to that of murine KC, another murine alpha chemokine whose expression is induced by PDGF. In addition, the protein sequence of MIP-2 is also 60% identical to human GROβ and GROy. It has been suggested that mouse KC and MIP-2 are the homologs of the human GROs and rat CINC.

Similarly to other alpha chemokines, murine MIP-2 is a potent neutrophil attractant and activator. MIP-2 and KC can bind the murine interleukin 8 type B receptor homologue with high affinity. The expression of MIP-2 was found to be associated with neutrophil influx in pulmonary inflammation and glomerulonephritis, suggesting that MIP-2 may contribute to the pathogenesis of inflammatory diseases.