

**DESCRIPTION**

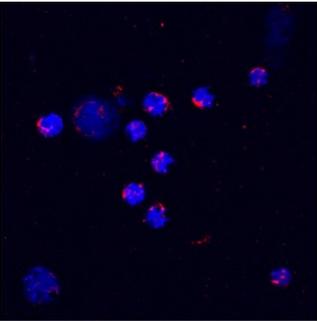
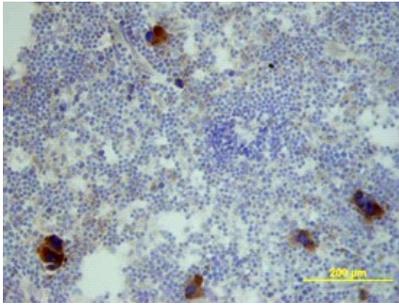
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse CXCL2/MIP-2 in ELISAs and Western blots. In sandwich immunoassays, less than 0.05% cross-reactivity with recombinant human (rh) GRO $\beta$ , rhGRO $\gamma$ , recombinant mouse (rm) C10, rmMIP-1 $\alpha$ , rmMIP-1 $\beta$ , rhRANTES, and rmKC is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse CXCL2/MIP-2 (R&D Systems, Catalog # 452-M2) Ala28-Asn100 Accession # P10889
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

**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
<b>Western Blot</b>	0.1 $\mu$ g/mL	Recombinant Mouse CXCL2/GRO $\beta$ /MIP-2/CINC-3 (Catalog # 452-M2)
<b>Immunocytochemistry</b>	5-15 $\mu$ g/mL	See Below
<b>Immunohistochemistry</b>	5-15 $\mu$ g/mL	See Below
<b>Mouse CXCL2/MIP-2 Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	2-8 $\mu$ g/mL	Mouse CXCL2/GRO $\beta$ /MIP-2/CINC-3 Antibody (Catalog # MAB452)
<b>ELISA Detection</b>	0.1-0.4 $\mu$ g/mL	Mouse CXCL2/GRO $\beta$ /MIP-2/CINC-3 Biotinylated Antibody (Catalog # BAF452)
<b>Standard</b>		Recombinant Mouse CXCL2/MIP-2 (Catalog # 452-M2)

**DATA**

<p><b>Immunocytochemistry</b></p>  <p><b>CXCL2/GRO<math>\beta</math>/MIP-2/CINC-3 in Mouse Splenocytes.</b> CXCL2/GRO<math>\beta</math>/MIP-2/CINC-3 was detected in immersion fixed mouse splenocytes stimulated with LPS and monensin using Mouse CXCL2/GRO<math>\beta</math>/MIP-2/CINC-3 Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF452) at 10 <math>\mu</math>g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Streptavidin (red; Catalog # NL999) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for <a href="#">Fluorescent ICC Staining of Non-adherent Cells</a>.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>CXCL2/GRO<math>\beta</math>/MIP-2/CINC-3 in Mouse Spleen.</b> CXCL2/GRO<math>\beta</math>/MIP-2/CINC-3 was detected in immersion fixed frozen sections of mouse spleen using Mouse CXCL2/GRO<math>\beta</math>/MIP-2/CINC-3 Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF452) at 15 <math>\mu</math>g/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for <a href="#">Chromogenic IHC Staining of Frozen Tissue Sections</a>.</p>
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**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

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 GRO $\beta$  and GRO $\gamma$ . It has been suggested that mouse KC and MIP-2 are the homologs of the human GROs and rat CINC3s.

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.