Mouse CXCL10/IP-10/CRG-2 Antibody
Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF-466-NA

DESCRIPTION

Species Reactivity: Mouse

Specificity: Detects mouse CXCL10/IP-10/CRG-2 in direct ELISAs and Western blots. In direct ELISAs, less than 10% cross-reactivity with recombinant human CXCL10 is observed.

Source: Polyclonal Goat IgG

Purification: Antigen Affinity-purified

Immunogen: E. coli-derived recombinant mouse CXCL10/IP-10/CRG-2 l22-Pro98 Accession # P17515

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

<table>
<thead>
<tr>
<th>Sample</th>
<th>Concentration</th>
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<tbody>
<tr>
<td>Western Blot</td>
<td>1 µg/mL</td>
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<tr>
<td>Immunohistochemistry</td>
<td>5-15 µg/mL</td>
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<tr>
<td>Neutralization</td>
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Neutralization: Measured by its ability to neutralize CXCL10/IP-10/CRG-2-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CXCR3. The Neutralization Dose (ND50) is typically 5-25 µg/mL in the presence of 0.5 µg/mL Recombinant Mouse CXCL10/IP-10/CRG-2.

DATA

Western Blot

Detection of Mouse CXCL10/IP-10/CRG-2 by Western Blot. Western blot shows lysates of RAW 264.7 mouse monocytic/macrophage cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Mouse CXCL10/IP-10/CRG-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-466-NA) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for CXCL10/IP-10/CRG-2 at approximately 15 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Neutralization

Chemotaxis Induced by CXCL10/IP-10/CRG-2 and Neutralization by Mouse CXCL10/IP-10/CRG-2 Antibody

Recombinant Mouse CXCL10/CRG-2 (Catalog # 466-CR) chemoattracts the BaF3 mouse pro-B cell line transfected with human CXCR3 in a dose-dependent manner (orange line). The amount of cells that migrated through the chemotaxis chamber was measured by Resazurin (Catalog # AR002). Chemotaxis elicited by Recombinant Mouse CXCL10/IP-10/CRG-2 (0.5 µg/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Mouse CXCL10/IP-10/CRG-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-466-NA). The ND50 is typically 5-25 µg/mL.

Immunohistochemistry

CXCL10/IP-10/CRG-2 in Mouse Thymus.
CXCL10/IP-10/CRG-2 was detected in immersion fixed frozen sections of mouse thymus using Goat Anti-Mouse CXCL10/IP-10/CRG-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-466-NA) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to lymphocytes. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.
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.

BACKGROUND

The gene for CRG-2, a mouse homolog of human IP-10, was originally identified as an immediate early gene induced in response to macrophage activation. It has since been shown that CRG-2 mRNA is induced by α/β/γ-interferons and by lipopolysaccharide in macrophages, astrocytes and microglia. Human IP-10 was also shown to be expressed in activated T-lymphocytes, splenocytes, keratinocytes, osteoblasts, astrocytes, and smooth muscle cells. Mouse CRG-2 cDNA encodes a 98 amino acid (aa) residue precursor protein with a 21 aa residue signal peptide that is cleaved to form the 77 aa residue secreted mature protein. Mature CRG-2 shares approximately 67% amino acid sequence identity with human IP-10. The amino acid sequence of CRG-2 identified the protein as a member of the chemokine α subfamily that lacks the ELR domain. CRG-2 has been shown to be a chemoattractant for activated T-lymphocytes. Recently, human IP-10 has also been reported to be a potent inhibitor of angiogenesis and to display a potent thymus-dependent anti-tumor effect. A chemokine receptor specific for IP-10 and MIG (CXCR3) has been cloned and shown to be highly expressed in IL-2-activated T-lymphocytes.

References: