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 Ile22-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.

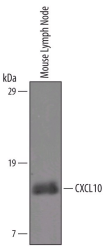
APPLICATIONS

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	See Below
Immunohistochemistry	5-15 µg/mL	Perfusion fixed frozen sections of mouse small intestine (Peyer's patch)
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 (ND_{50}) is typically 5-25 µg/mL in the presence of 0.5 µg/mL Recombinant Mouse CXCL10/IP-10/CRG-2.	

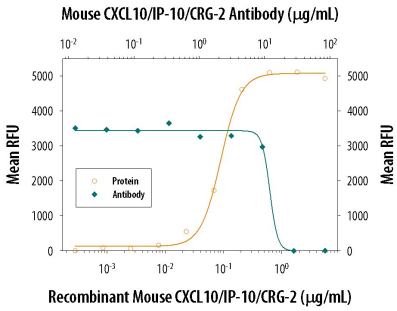
DATA

Western Blot



Detection of Mouse CXCL10 by Western Blot.
Western blot shows lysates of mouse lymph node tissue. 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 # HAF019). A specific band was detected for CXCL10 at approximately 12 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Neutralization



Chemotaxis Induced by CXCL10/CRG-2 and Neutralization by Mouse CXCL10/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 to the lower chemotaxis chamber was measured by Resazurin (Catalog # AR002). Chemotaxis elicited by Recombinant Mouse CXCL10/CRG-2 (0.5 µg/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Mouse CXCL10/CRG-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-466-NA). The ND_{50} is typically 5-25 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.
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

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:

1. Loetscher, M. *et al.* (1996) J. Exp. Med. **184**:963.
2. Vanguri, P. (1996) J. Neuroimmunol. **56**:35.
3. Sgadari, C. *et al.* (1996) Blood **87**:3877.