Cotton Rat CXCL10/IP-10/CRG-2 Antibody

Monoclonal Mouse IgG_1 Clone # 163426

Catalog Number: MAB1117

DESCRIPTION

Species Reactivity	Cotton Rat
Specificity	Detects cotton rat CXCL10/IP-10/CRG-2 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human CXCL1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, or 16, recombinant mouse CXCL1, 2, 4, 6, 7, 9, 10, 11, 12, 13, 15 or 16, recombinant rat CXCL1, 2, 3, 5 or recombinant porcine CXCL8 is observed.
Source	Monoclonal Mouse IgG_1 Clone # 163426
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant cotton rat CXCL10/IP−10/CRG−2 Ile22-Val94 Accession # AAL16935
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.

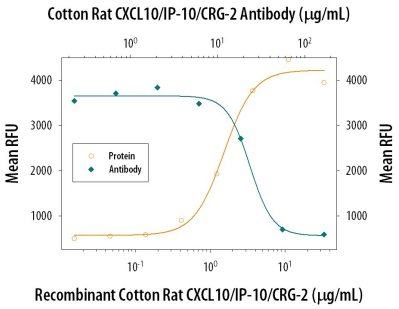
APPLICATIONS

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	1 µg/mL	Recombinant Cotton Rat CXCL10/IP-10/CRG-2 (Catalog # 1117-IP) under non-reducing conditions only
Neutralization	Measured by its ability to neutralize CXCL10/IP−10/CRG−2-induced chemotaxis in the BaF3 mouse pro−B cell line transfected with mouse CXCR3. The Neutralization Dose (ND_{50}) is typically 20-40 µg/mL in the presence of 10 µg/mL Recombinant Cotton Rat CXCL10/IP−10/CRG−2.	

DATA

Neutralization



Chemotaxis Induced by CXCL10/IP-10/CRG-2 and Neutralization by Cotton Rat CXCL10/IP-10/CRG-2 Antibody. Recombinant Cotton Rat CXCL10/IP-10/CRG-2 (Catalog # 1117-IP) chemo-attracts the BaF3 mouse pro-B cell line transfected with mouse 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 Cotton Rat CXCL10/IP-10/CRG-2 (10 µg/mL) is neutralized (green line) by increasing concentrations of Mouse Anti-Cotton Rat CXCL10/IP-10/CRG-2 Monoclonal Antibody (Catalog # MAB1117). The ND_{50} is typically 20-40 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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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BACKGROUND

IP-10, also named mob-1 in rat and crg-2 in mouse, is a member of the non-ELR-motif containing CXC chemokine subfamily and has been designated CXCL10. It is induced in various cell types (including keratinocytes, endothelial cells, fibroblasts, smooth muscle cells, monocytes/macrophages, astrocytes, neutrophils, hepatocytes, T cells, epithelial cells and mesothelial cells) in response to stimulation by type I and/or type II interferon as well as by LPS. IP-10 has been shown to chemoattract activated $CD4^+$ and $CD8^+$ T cells, activated NK cells and smooth muscle cells. It also induces the adhesion of activated T cells to VCAM and ICAM. In addition, IP-10 has been reported to antagonize the angiogenic activity of FGF. IP-10 binds to and activates CXCR3, the chemokine receptor that is shared by MIG/CXCL9 and I-TAC/CXCL11, two additional non-ELR CXC chemokines that are induced by interferon. Cotton rat IP-10 cDNA encodes a 94 amino acid (aa) residue precursor protein with a putative 21 aa signal peptide and a 73 aa mature protein with one potential N-linked glycosylation site. Mature cotton rat IP-10 shares 66%, 64%, and 66% aa sequence identity with rat, mouse and human IP10, respectively (1-7).

References:

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