# Human CXCL10/IP-10/CRG-2 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF-266-NA

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Human |
| **Specificity** | Detects human CXCL10/IP-10/CRG-2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 10% cross-reactivity with recombinant mouse CRG-2, recombinant human (rh) MIG, and rhGROγ. |
| **Source** | Polyclonal Goat IgG |
| **Purification** | Antigen Affinity-purified |
| **Immunogen** | *E. coli*-derived recombinant human CXCL10/IP-10/CRG-2<br>Val22-Pro98<br>Accession # P02778 |
| **Endotoxin Level** | <0.20 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.<br>*Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS. |

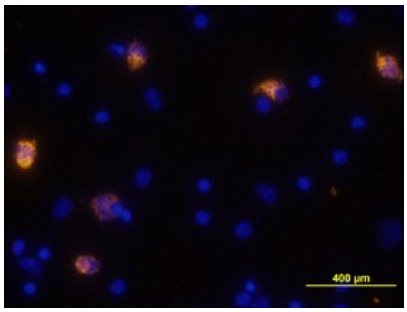
## APPLICATIONS

**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** | 0.1 µg/mL | Recombinant Human CXCL10/IP-10/CRG-2 (Catalog # 266-IP) |
| **Immunocytochemistry** | 5-15 µg/mL | See Below |
| **Immunohistochemistry** | 1-15 µg/mL | See Below |
| **Intracellular Staining by Flow Cytometry** | 2.5 µg/$10^6$ cells | Human peripheral blood monocytes treated with Recombinant Human IFN-γ (Catalog # 285-IF), fixed with paraformaldehyde, and permeabilized with saponin |
| **CyTOF-ready** | Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation. | |
| **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 1-4 µg/mL in the presence of 0.2 µg/mL Recombinant Human CXCL10/IP-10/CRG-2. | |

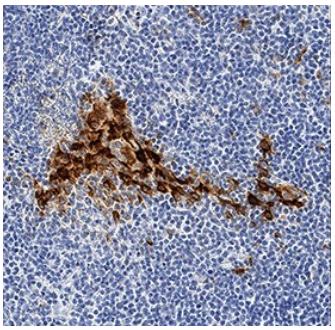
## DATA

### Immunocytochemistry




**CXCL10/IP-10 in Human PBMCs.** CXCL10/IP-10 was detected in immersion fixed PHA-treated human peripheral blood mononuclear cells (PBMCs) using 10 µg/mL Goat Anti-Human CXCL10/IP-10 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-266-NA) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

### Immunohistochemistry



**CXCL10/IP-10/CRG-2 in Human Tonsil.** CXCL10/IP-10/CRG-2 was detected in immersion fixed paraffin-embedded sections of human tonsil using Goat Anti-Human CXCL10/IP-10/CRG-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-266-NA) at 1 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.



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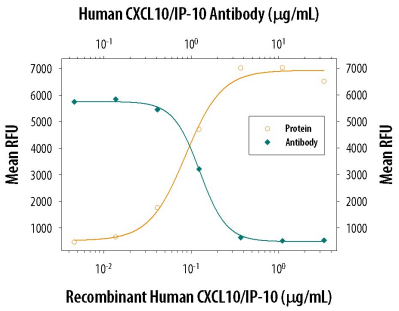
**Neutralization**




**Chemotaxis Induced by CXCL10/IP-10 and Neutralization by Human CXCL10/IP-10 Antibody.** Recombinant Human CXCL10/IP-10 (Catalog # 266-IP) 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 Human CXCL10/IP-10 (0.2 µg/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human CXCL10/IP-10 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-266-NA). The $ND_{50}$ is typically 1-4 µg/mL.

## PREPARATION AND STORAGE

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| **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.<br>*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.**<br>● 12 months from date of receipt, -20 to -70 °C as supplied.<br>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

## BACKGROUND

CXCL10 was originally identified as an IFN-γ-inducible gene in monocytes, fibroblasts, and endothelial cells. It has since been shown that CXCL10 mRNA is also induced by LPS, IL-1β, TNF-α, IL-12, and viruses. Additional cell types that have been shown to express CXCL10 include activated T-lymphocytes, splenocytes, keratinocytes, osteoblasts, astrocytes, and smooth muscle cells. CXCL10 is also expressed in psoriatic and lepromatous lesions of skin. The mouse homologue of human CXCL10, CRG-2, has been cloned and shown to share approximately 67% amino acid sequence identity with human CXCL10. Human CXCL10 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 protein. The amino acid sequence of CXCL10 identified the protein as a member of the chemokine α subfamily that lacks the ELR domain. CXCL10 has been shown to be a chemoattractant for activated T-lymphocytes. CXCL10 has been reported to be a potent inhibitor of angiogenesis and to display a potent thymus-dependent antitumor effect. A chemokine receptor specific for CXCL10 and MIG 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. Wang, X. *et al* .(1996) J. Biol. Chem. **271**:24286.



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