Human CXCL16 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF976

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CXCL16 in ELISAs and Western blots. In ELISAs, less than 0.05% cross-reactivity with recombinant mouse (rm) CXCL16, rm6Ckine, recombinant human (rh) BLC, rhCTACK, rhIL-8, rhPF4, and rhLymphotactin is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human CXCL16 Asn49-Pro137 Accession # NP_071342
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.

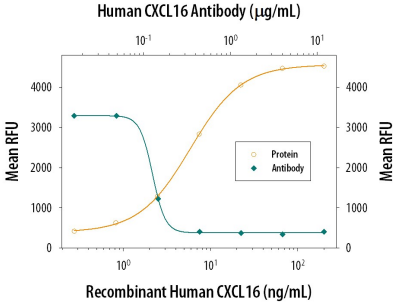
APPLICATIONS

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	0.1 µg/mL	Recombinant Human CXCL16 Chemokine Domain (Catalog # 976-CX)
Flow Cytometry	2.5 µg/10^6 cells	Human monocyte-derived dendritic cells
Immunohistochemistry	5-15 µg/mL	See Below
Human CXCL16 Sandwich Immunoassay		**Reagent**
ELISA Capture	0.2-0.8 µg/mL	Human CXCL16 Antibody (Catalog # AF976)
ELISA Detection	0.1-0.4 µg/mL	Human CXCL16 Biotinylated Antibody (Catalog # BAF976)
Standard		Recombinant Human CXCL16 Extracellular Domain (Catalog # 1164-CX)
Neutralization	Measured by its ability to neutralize CXCL16-induced chemotaxis in BaF3 mouse pro-B cell line transfected with mouse CXCR6. Matloubian, M. et al. (2000) Nat. Immunol.The Neutralization Dose (ND_{50}) is typically 0.05-0.25 µg/ml in the presence of 20 ng/mL Recombinant Human CXCL16 Chemokine Domain.	

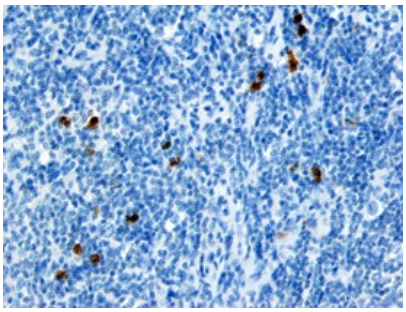
DATA

Neutralization



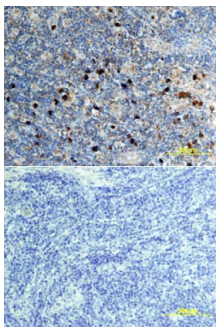
Chemotaxis Induced by CXCL16 and Neutralization by Human CXCL16 Antibody. Recombinant Human CXCL16 Chemokine Domain (Catalog # 976-CX) induces chemotaxis in BaF3 mouse pro-B cell line transfected with mouse CXCR6 in a dose-dependent manner (orange line). Chemotaxis elicited by Recombinant Human CXCL16 Chemokine Domain (20 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human CXCL16 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF976). The ND_{50} is typically 0.05-0.25 µg/ml.

Immunohistochemistry



CXCL16 in Human Lymph Node. CXCL16 was detected in immersion fixed paraffin-embedded sections of human lymph node using Goat Anti-Human CXCL16 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF976) at 10 µg/mL overnight at 4 °C. Before incubation with the primary antibody tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Immunohistochemistry



CXCL16 in Human Lymphoma. CXCL16 was detected in immersion fixed paraffin-embedded sections of human lymphoma using Goat Anti-Human CXCL16 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF976) 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). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

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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

CXC chemokine ligand 16 (CXCL16) is a type I membrane protein containing a non-ELR motif-containing CXC chemokine domain in its extracellular region. Together with Fractalkine (CX3CL1), CXCL16 constitute the only two transmembrane chemokines within the superfamily. The gene for human CXCL16 predicts a 273 amino acid (aa) residue precursor protein with a putative signal peptide, a CXC chemokine domain, a mucin-like spacer region, a transmembrane domain and a cytoplasmic domain with a potential tyrosine phosphorylation and SH2 protein-binding site. Mouse and human CXCL16 share 70% aa sequence similarity within their chemokine domains and 49% overall aa sequence identity. By northern blot analysis, CXCL16 expression is detected in various human organs except for brain, bone marrow, skeletal muscle or colon. By flow cytometry, CXCL16 has been detected on the surface $CD19^+$ B cells, $CD14^+$ monocytes/macrophages, and $CD11c^+$ splenic and lymph node dendritic cells. Functional CXCL16 can be shed from the cell surface as an approximately 35 kDa soluble protein. The functional receptor for CXCL16 has been identified as CXCR6 (also known as Bonzo, STRL33 or TYMSTR), a receptor previously shown to be a co-receptor for HIV entry. CXCL16 has also been independently cloned and named SRPSOX (scavenger receptor that binds phosphatidylserine and oxidized lipoprotein). It was shown to be a specific receptor for OxLDL but not LDL or acetyl-LDL.

References:

1. Matloubian, M. *et al*. (2000) Nature Immun. **1**:298.
2. Shimaoka, T. *et al*. (2000) J. Biol. Chem. **275**:40663.
3. Wilbanks, A. *et al*. (2001) J. Immun. **166**:5145.