Human CXCL13/BLC/BCA-1 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF801

DESCRIPTION

Species Reactivity	Human
Specificity	Detects CXCL13/BLC/BCA-1 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human CXCL13/BCA-1 Val23-Arg94 Accession # Q53X90
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.

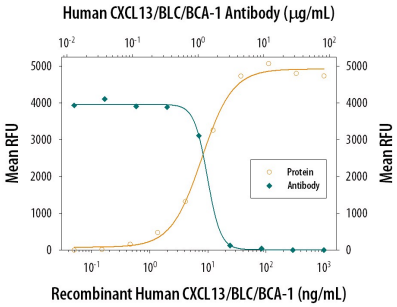
APPLICATIONS

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	0.1 µg/mL	Recombinant Human CXCL13/BLC/BCA-1 (Catalog # 801-CX)
Immunohistochemistry	5-15 µg/mL	See Below
Neutralization	Measured by its ability to neutralize CXCL13/BLC/BCA-1-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CXCR5. The Neutralization Dose (ND_{50}) is typically 1-4 µg/mL in the presence of 50 ng/mL Recombinant Human CXCL13/BLC/BCA-1.	

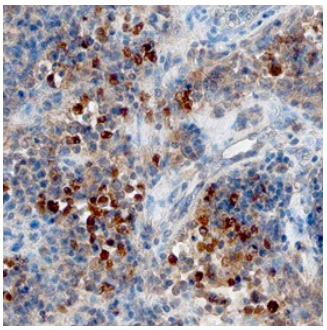
DATA

Neutralization



Chemotaxis Induced by CXCL13/BLC/BCA-1 and Neutralization by Human CXCL13/BLC/BCA-1 Antibody. Recombinant Human CXCL13/BLC/BCA-1 (Catalog # 801-CX) chemoattracts the BaF3 mouse pro-B cell line transfected with human CXCR5 in a dose-dependent manner (orange line). The amount of cells that migrated through to the lower chemotaxis chamber was measured by Resazurin. Chemotaxis elicited by Recombinant Human CXCL13/BLC/BCA-1 (50 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human CXCL13/BLC/BCA-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF801). The ND_{50} is typically 1-4 µg/mL.

Immunohistochemistry



CXCL13/BLC/BCA-1 in Human Lymphoma. CXCL13/BLC/BCA-1 was detected in immersion fixed paraffin-embedded sections of human lymphoma using Goat Anti-Human CXCL13/BLC/BCA-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF801) 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). Specific staining was localized to cytoplasm. View our protocol for Chromogenic IHC Staining of Paraffin-embedded 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.
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 from date of receipt, 2 to 8 °C, reconstituted. ● 6 months from date of receipt, -20 to -70 °C, reconstituted.

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BACKGROUND

CXCL13, also known as B-lymphocyte chemoattractant (BLC), is a CXC chemokine that is constitutively expressed in secondary lymphoid organs. BCA-1 cDNA encodes a protein of 109 amino acid residues with a leader sequence of 22 residues. Mature human BCA-1 shares 64% amino acid sequence similarity with the mouse protein and 23-34% amino acid sequence identity with other known CXC chemokines. Recombinant or chemically synthesized BCA-1 is a potent chemoattractant for B lymphocytes but not T lymphocytes, monocytes or neutrophils. BLR1, a G protein-coupled receptor originally isolated from Burkitt's lymphoma cells, has now been shown to be the specific receptor for BCA1. Among cells of the hematopoietic lineages, the expression of BLR1, now designated CXCR5, is restricted to B lymphocytes and a subpopulation of T helper memory cells. Mice lacking BLR1 have been shown to lack inguinal lymph nodes. These mice were also found to have impaired development of Peyer's patches and defective formation of primary follicles and germinal centers in the spleen as a result of the inability of B lymphocytes to migrate into B cell areas.

References:

1. Gunn, M.D. *et al.* (1998) Nature, **391**:799.
2. Legler, D.F. *et al.* (1998) J. Exp. Med. **187**:655.
3. Forster, R. *et al.* (1996) Cell **87**:1037.