Human CXCL13/BLC/BCA-1 Antibody

Monoclonal Mouse IgG_1 Clone # 53610

Catalog Number: MAB801

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CXCL13/BLC/BCA-1 in ELISAs and Western blots. In ELISAs, this antibody does not cross-react with recombinant human (rh) CXCL1, rhCXCL2, rhCXCL3, rhCXCL8/IL-8, rhCXCL10, rhCXCL9, rhCXCL12/SDF-1α, or rhCXCL12/SDF-1β.
Source	Monoclonal Mouse IgG_1 Clone # 53610
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human CXCL13/BLC/BCA-1 Val23-Arg94 Accession # O43927
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.

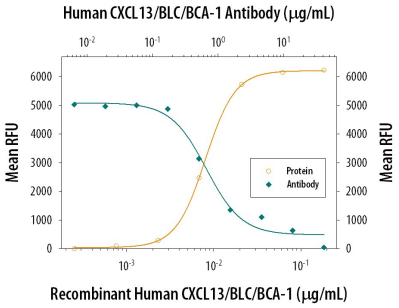
APPLICATIONS

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 Human CXCL13/BLC/BCA-1 (Catalog # 801-CX)
Intracellular Staining by Flow Cytometry	2.5 µg/10^6 cells	Human monocyte-derived immmature dendritic cells fixed with paraformaldehyde and permeabilized with saponin
Human CXCL13/BLC/BCA-1 Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Human CXCL13/BLC/BCA-1 Antibody (Catalog # MAB801)
ELISA Detection	0.1-0.4 µg/mL	Human CXCL13/BLC/BCA-1 Biotinylated Antibody (Catalog # BAF801)
Standard		Recombinant Human CXCL13/BLC/BCA-1 (Catalog # 801-CX)
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 0.3-0.9 µg/mL in the presence of 0.05 µg/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 (Catalog # AR002). Chemotaxis elicited by Recombinant Mouse Anti-Human CXCL13/BLC/BCA-1 (0.05 µg/mL) is neutralized (green line) by increasing concentrations of Human CXCL13/BLC/BCA-1 Monoclonal Antibody (Catalog # MAB801). The ND_{50} is typically 0.3-0.9 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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Human CXCL13/BLC/BCA-1 Antibody

Monoclonal Mouse IgG_1 Clone # 53610

Catalog Number: MAB801

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 BCA-1. 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.

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