

## BCA 1 Human

**Description:** CXCL13 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 87 amino acids and having a molecular mass of 10.3 kDa. The BCA-1 is purified by proprietary chromatographic techniques.

**Synonyms:** C-X-C motif chemokine 13, Small-inducible cytokine B13, B lymphocyte chemoattractant, CXC chemokine BLC, CXCL13, BCA1, BCA-1, CXCL-13, B cell Attracting Chemokine-1, BLC, ANGIE, BLR1L, SCYB13, ANGIE2.

**Source:** Escherichia Coli.

**Physical Appearance:** Sterile Filtered White lyophilized (freeze-dried) powder.

**Amino Acid Sequence:**

VLEVYYSRLRCRCVQESSVFIPRRFIDRIQLPRGNGCPRKEIIVWKNKSIVCVDPAEWIQRMMELVLRKRSSSTLPVPVFKRKIP.

**Purity:** Greater than 97.0% as determined by (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

**Formulation:**

The BCA-1 protein was lyophilized from a concentrated (0.5mg/ml) solution containing 20mM PBS & 150mM NaCl pH-7.4.

**Stability:**

Lyophilized BCA1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution BCA1 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Usage:**

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

**Solubility:**

It is recommended to reconstitute the lyophilized CXCL13 in sterile 18M-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

**Introduction:**

BCA-1 is a CXC chemokine that is highly expressed in these secondary lymphoid organs, such as follicles of the spleen, lymph nodes, and Peyer's patches. CXCL13 promotes the migration of B lymphocytes (compared to T cells and macrophages), by stimulating calcium influx into, and chemotaxis of, cells expressing Burkitt's lymphoma receptor 1 (BLR1). BCA1 therefore function in the homing of B lymphocytes to follicles. Human BCA-1 shares a 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 BCA1 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 BLR-1, now

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designated CXCR-5, is restricted to B lymphocytes and a subpopulation of T helper memory cells.



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**Biological Activity:**

Determined by its ability to chemoattract human B cells using a concentration range of 1-10ng/ml corresponding to a Specific Activity of 100,000-1,000,000IU/mg.

Catalog #:CHPS-355

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