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## Product Data Sheet

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Product Name: BCA-1 Human  
 Cat. No.: GP21066  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
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.		
Amino Acid Sequence	VLEVYYTSLRCRCVQESSVFIPRRFIDRIQILPRGNG CPRKEIIVWKKNKSIVCVDPQAEWIQRMMEVLRKR SSSTLPVPVFKRKIP.		
Solubility	It is recommended to reconstitute the lyophilized CXCL13 in sterile 18MΩ-cm H <sub>2</sub> O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	The BCA-1 protein was lyophilized from a concentrated (0.5mg/ml) solution containing 20mM PBS & 150mM NaCl pH-7.4.		

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

**Caution: Product has not been fully validated for medical applications. For research use only.**

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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.

### 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.

### Background

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.

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