

Rev03
Update: Dec,14,2021

DATASHEET

BCA-1/CXCL13, Human

Cat. No.: Z02826

Product Introduction

Species	Human
Protein Construction	CXCL13 (Val23-Pro109) Accession # O43927
Purity	> 97% as analyzed by SDS-PAGE > 97% as analyzed by HPLC
Endotoxin Level	< 1 EU/ μ g of protein by LAL method
Biological Activity	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human B cells is in a concentration range of 1.0-10.0 ng/ml.
Expression System	E. coli
Theoretical Molecular Weight	10.3 kDa
Formulation	Lyophilized from a 0.2 μ m filtered solution in 20 mM PB, pH 7.4, 100 mM NaCl.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

Background

Target 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.

Synonyms : Angie; BCA-1; BCA1; BLC; SCYB13; B cell-attracting chemokine 1; B lymphocyte chemoattractant; CXC chemokine BLC; Small-inducible cytokine B13

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.