

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Human BCA-1 (rHuBCA-1/CXCL13)

Catalog Number: PR1004

Source: Escherichia coli.

Quantity: 5µg/20µg/1.0mg

Description

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

Molecular Weight:

10.3 kDa, a single non-glycosylated polypeptide chain containing 87 amino acids.

Purity:

>97% by SDS-PAGE and HPLC analyses.

Biological Activity:

Measured by its ability to chemoattract human CXCR5 transfected BaF3 mouse pro-B cells. The ED50 for this effect is typically 0.005-0.02 µg/mL, corresponding to a Specific Ac-

tivity of 5×10^4 IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2µm filtered concentrated solution in 20mM PB, pH 7.4, 100mM NaCl.

AA Sequence:

V L E V Y Y T S L R C R C V Q E S S V F I P R R F I D R
I Q I L P R G N G C P R K E I I V W K K N K S I V C V D
P Q A E W I Q R M M E V L R K R S S S T L P V P V F K
R K I P

Endotoxin:

Less than 1EU/µg of rHuBCA-1/CXCL13 as determined by LAL method.

Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at -20°C . Further dilutions should be made in appropriate buffered solutions.

Storage:

This lyophilized preparation is stable at $2-8^{\circ}\text{C}$, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at $2-8^{\circ}\text{C}$. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C . Avoid repeated freeze/thaw cycles.

Bioworld Technology, Inc.

1660 South Highway 100, Suite 500 St. Louis Park, MN

55416, USA.

Tel: 6123263284

Email: info@bioworld.com

Fax: 6122933841

Bioworld technology, co, Ltd.

No 9, weidi road Qixia District Nanjing, 210046, P, R.China.

Tel: 0086-025-86371664

Email: info@biogot.com

Fax: 0086-025-86213570

MADE IN CHINA

PRODUCT DATA SHEET

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR

HUMAN USE. Made in China

MADE IN CHINA

Bioworld Technology, Inc.

1660 South Highway 100, Suite 500 St. Louis Park, MN
55416, USA. Email: info@bioworldde.com
Tel: 6123263284 Fax: 6122933841

Bioworld technology, co, Ltd.

No 9, weidi road Qixia District Nanjing, 210046, P, R.China.
Email: info@biogot.com
Tel: 0086-025-86371664 Fax: 0086-025-86213570