

## Recombinant Mouse BCA-1 (CXCL13)

**Synonyms:** C-X-C motif chemokine 13, B lymphocyte chemoattractant, CXC chemokine BLC, Small-inducible cytokine B13, Blc, Scyb13.

**Introduction:** BCA-1 is a CXC chemokine that is highly expressed in the secondary lymphoid organs, such as follicles of the spleen, lymph nodes, and Peyer's patches. It 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) and therefore functions 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 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 BLR-1, now designated CXCR-5, is restricted to B lymphocytes and a subpopulation of T helper memory cells.

**Description:** BCA-1 Mouse Recombinant (22-109) produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 88 amino acids and having a molecular mass of 10kDa. The BCA-1 is purified by proprietary chromatographic techniques.

**Source:** *Escherichia Coli*

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder..

**Formulation:** Lyophilized from a 0.2µm filtered solution in Acetonitrile and TFA.

**Solubility:** It is recommended to reconstitute the lyophilized BCA-1 in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized BCA-1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution it 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.

**Purity:** Greater than 97.0% as determined by SDS-PAGE..

**Amino Acid Sequence:** ILEAHYTNLK CRCSGVISTV VGLNIIDRIQ VTPPGNGCPK TEVVIWTKMK KVICVNPRAK WLQRLLRHVQ SKSLSTPQA PVSRRRAA.

**Biological Activity:** The ED<sub>50</sub>, as measured by its ability to chemoattract human CXCR5-transfected mouse BaF3 cells, is less than 2µg/ml.

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<i>small</i>	5 µg	Cat.N°	12344180
<i>medium</i>	20 µg	Cat.N°	12344184

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