

**APB601Hu01 50µg**  
**Active B-Lymphocyte Chemoattractant (BLC)**  
**Organism Species: *Homo sapiens* (Human)**  
***Instruction manual***

FOR RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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13th Edition (Revised in Aug, 2023)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Val23~Arg94

**Tags:** N-terminal His-tag

**Purity:** >95%

**Endotoxin Level:** <1.0EU per 1µg (determined by the LAL method).

**Buffer Formulation:** PBS, pH7.4, containing 0.01% SKL, 5%Trehalose .

**Original Concentration:** 200µg/mL

**Applications:** Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

**Predicted isoelectric point:** 10.4

**Predicted Molecular Mass:** 12.4kDa

**Accurate Molecular Mass:** 17kDa as determined by SDS-PAGE reducing conditions.

## **[ USAGE ]**

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## **[ STORAGE AND STABILITY ]**

**Storage:** Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

**Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

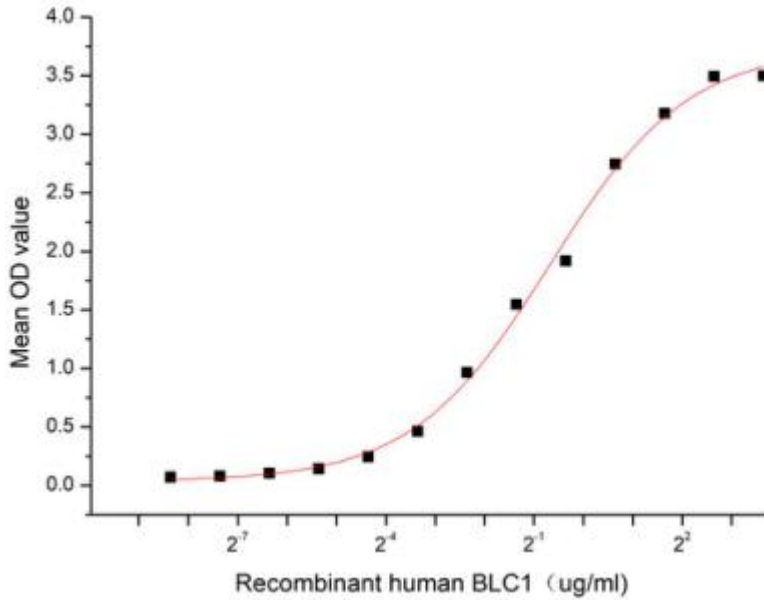
## **[ SEQUENCE ]**

VLEVYYTS LRCRCVQESS VFIPRRFIDR  
IQILPRGNGC PRKEIIVWKK NKSIVCVDPQ AEWIQRMMEV LRKR

## **[ ACTIVITY ]**

Lymphocyte Chemoattractant 1 (BLC1), also known as CXC chemokine ligand 13 (CXCL13) is a member of the CC chemokine family and is constitutively expressed in secondary lymphoid organs. BLC1 functions by attracting B lymphocytes to sites of inflammation, thus facilitating the immune response against pathogens. The protein is involved in various physiological processes, including B cell migration, proliferation, and differentiation. Additionally, BLC1 has been associated with several diseases, including autoimmune disorders and certain types of cancer. Chemokine C-X-C-Motif Receptor 5 (CXCR5) is the cognate receptor for BLC1, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human BLC1 and recombinant human CXCR5. Briefly, BLC1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100  $\mu$ l were then transferred to CXCR5-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-BLC1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37°C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50  $\mu$ L stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant human BLC1 and recombinant

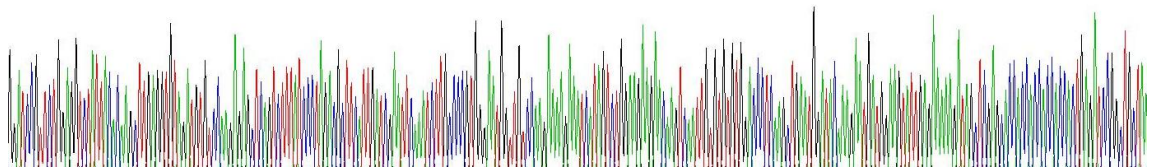
human CXCR5 was shown in Figure 1, the EC50 for this effect is 0.62ug/mL.



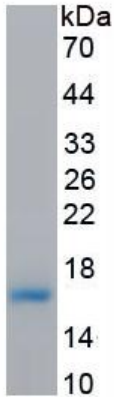
**Figure 1. The binding activity of recombinant human BLC1 and human CXCR5**

**[ IDENTIFICATION ]**

550TGTCTGGGCTTDCAGCTTGAGCGTGGTCCAGGCGCCGCTTTDCCCTGGCCCTGTTGGTTCATTCCTCCCGGGTGGTGTCCGCGAGGATGATGATCTGGAGGAGCGCATTTGCTGGGCGCCCTCAGCGAGGATGAGGATGGATTTGGAGAGGCTCCGCGCCCGCCCGCCGAGTCCGCTCGA



**Figure 2. Gene Sequencing (extract)**



**Figure 3. SDS-PAGE**

**Sample: Active recombinant BLC, Human**

**[ IMPORTANT NOTE ]**

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.