

# Recombinant Human BCAM

Catalog Number: 10238-H08H



**Sino Biological Inc.**  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

BCAM, AU, CD239, LU, MSK19

### Protein Construction:

A DNA sequence encoding the extracellular domain of human BCAM (NP\_005572.2) (Met 1- Ala 547) was fused with a polyhistidine tag at the C-terminus.

**Source:** Human

**Expression Host:** Human Cells

## QC Testing

**Purity:** > 98 % as determined by SDS-PAGE

### Endotoxin:

<1.0 EU per µg protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Glu 32

### Molecular Mass:

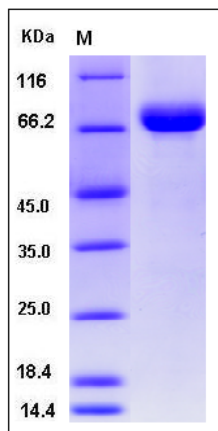
The secreted recombinant human BCAM consists of 527 amino acids and predicts a molecular mass of 57.7 KDa. As a result of glycosylation, rh BCAM migrates as approximately 70 KDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5% - 8% trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

### SDS-PAGE:



## Usage Guide

### Storage:

Store it under sterile conditions at -70°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## Protein Description

Basal cell adhesion molecule (BCAM) and Lutheran blood group glycoprotein (LU) are two alternatively spliced variants of a single pre-mRNA. They are type I membrane proteins of the immunoglobulin superfamily (IgSF) sharing similar structure characteristics except for the length of cytoplasmic tails. The mature 597 amino acid BCAM contains an extracellular domain composing of five Ig-like domains (two V-set and three C2-set), a single transmembrane domain, and a 19aa cytoplasmic domain which lacks the putative Src homology 3 (SH3) binding site compared to the 59aa cytoplasmic domain present in LU. BCAM/LU has a wide tissue distribution with a predominant expression in the basal layer of the epithelium and the endothelium of blood vessel walls. As designated as CD239 recently, BCAM and LU share a significant sequence similarity with the CD146 (MUC18) and CD166, and themselves are adhesion molecules that bind laminin with high affinity. Laminins are found in all basement membranes and are involved in cell differentiation, adhesion, migration, and proliferation. It has been shown that BCAM expression is upregulated following malignant transformation in some cell types in vivo and in vitro, and BCAM is identified as a marker of epithelial ovarian cancers. In addition, BCAM interacts with integrin in sickle red cells, and thus may potentially play a role in vaso-occlusive episodes.

### References

1. Campbell IG. et al., 1994, Cancer Res. 54: 5761-5.
2. Parsons SF. et al., 1995, Proc Natl Acad Sci. 92: 5496-500.
3. Nemer WE. et al., 2001, J Biol Chem. 276: 23757-62.
4. Nemer WE. et al., 2007, Blood. 109: 3544-51.

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