



## Recombinant Protein Technical Manual

**Recombinant Mouse OBCAM/OPCML Protein (aa 1-541, His Tag)(Active)**  
RPES3500

### Product Data:

**Product SKU:** RPES3500

**Size:** 50µg

**Species:** Mouse

**Expression host:** HEK293 Cells

**Uniprot:** Q9R069

### Protein Information:

**Molecular Mass:** 58.3 kDa

**AP Molecular Mass:** 70-75 kDa

**Tag:** C-His

**Bio-activity:** Measured by the ability of the immobilized protein to support the adhesion of HOS human osteogenic sarcoma cells. When cells are added to coated plates(5 µg/mL, 100µL/well), approximately 30-70% will adhere after 1 hour at 37°C.

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

**Endotoxin:** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** 1200005K12Rik;B-CAM;Gplu;Lu

## Immunogen Information:

**Sequence:** Met 1-Ala 541

## Background:

The Lutheran (Lu) blood group and basal cell adhesion molecule (BCAM) antigens are both carried by 2 glycoprotein isoforms of the immunoglobulin superfamily representing receptors for the laminin alpha(5) chain. It is a transmembrane receptor with five immunoglobulin-like domains in its extracellular region, and is therefore classified as a member of the immunoglobulin (Ig) gene family. In addition to red blood cells, Lu/BCAM proteins are expressed in endothelial cells of vascular capillaries and in epithelial cells of several tissues. 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. BCAM is upregulated following malignant transformation of some cell types in vivo and in vitro, thus being a candidate molecule involved in tumor progression. In addition, BCAM interacts with integrin in sickle red cells, and thus may potentially play a role in vaso-occlusive episodes.