

Mouse OBCAM / OPCML Protein (His Tag)

Catalog Number: 51073-M08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

2900075O15Rik; 3732419F12; AI844366; B930023M13Rik; C230027C17; Gm181; Obcam

Protein Construction:

A DNA sequence encoding the mouse OPCML (NP_808574.2) (Ala5-Val313) was expressed with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. 2. Immobilized mouse OPCmL-His at 10µg/mL (100µL/well) can bind human LSAMP-Fc (Cat:12136-H02H). The EC₅₀ of human LSAMP-Fc (Cat:12136-H02H) is 0.04-0.1 µg/mL.

Endotoxin:

< 1.0 EU per µg of the 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: Thr 30

Molecular Mass:

The recombinant mouse OPCML comprises 295 amino acids and has a predicted molecular mass of 32.7 kDa. The apparent molecular mass of the protein is approximately 44-55 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

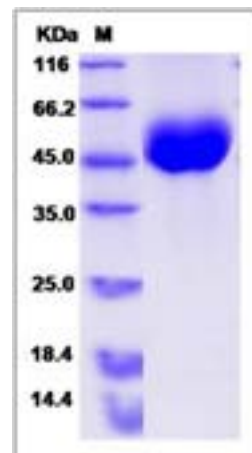
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Opioid-binding Cell Adhesion Molecule (OBCAM), also known as OPCML, is a GPI-anchored cell adhesion molecule in the plasma membrane. This neuron-specific protein, consists of three immunoglobulin (Ig)-like domains anchored to the membrane through a glycosylphosphatidylinositol (GPI)-tail. OPCML also belongs to the member of the IgLON family, a subgroup of the immunoglobulin superfamily, consisting of three members, LAMP, OBCAM, and Neurotrimin. These molecules interact homophilically and heterophilically within the family, and OBCAM acts only as heterodimers with LAMP or Neurotrimin and possibly inhibits neurite outgrowth from cerebellar granule cells. OBCAM has been presumed to play a role as a cell adhesion/recognition molecule. Furthermore, the OPCML protein defects may play an important role in the carcinogenesis of cervical or ovarian cancers, and this gene is regarded as a candidate TSG (tumor suppressor gene).

References

- 1.Hachisuka A, *et al.* (2000) Developmental expression of opioid-binding cell adhesion molecule (OBCAM) in rat brain. *Brain Res Dev Brain Res.* 122(2): 183-91.
- 2.Miyata S, *et al.* (2003) Polarized targeting of IgLON cell adhesion molecule OBCAM to dendrites in cultured neurons. *Brain Res.* 979(1-2): 129-36.
- 3.Yamada M, *et al.* (2007) Synaptic adhesion molecule OBCAM; synaptogenesis and dynamic internalization. *Brain Res.* 1165: 5-14.

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