

Human OBCAM / OPCML Protein (His Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 10328-H08H

General Information

Gene Name Synonym:

IGLON1; OBCAM; OPCM

Protein Construction:

A DNA sequence encoding the human OPCML precursor (NP_002536.1) (Met 1-Asn 322) was expressed with a C-terminal polyhistidine tag.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

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: Gly 28

Molecular Mass:

The mature recombinant human OPCML consists of 306 amino acids and has a calculated molecular mass of 34 kDa. As a result of glycosylation, rhOPCML migrates as an approximately 55-60 kDa protein in SDS-PAGE under reducing conditions.

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:

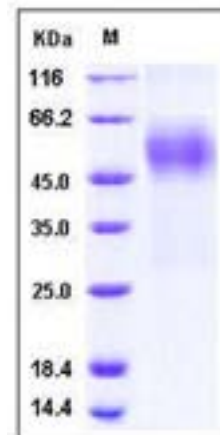
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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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