

Recombinant Mouse CADM1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51804

Size: 10ug, 100ug

Protein Name: Cell adhesion molecule 1 (Immunoglobulin superfamily member 4) (IgSF4) (Nectin-like protein 2) (NECL-2) (Spermatogenic immunoglobulin superfamily) (SgIgSF) (Synaptic cell adhesion molecule) (SynCAM) (Tumor suppressor in lung cancer 1) (TSLC-1)

Synonym: Cadm1, Igsf4, Necl2, Ra175, Syncam, SynCam1, Tslc1

UniProt ID: Q8R5M8

UniProt Link: www.uniprot.org/uniprotkb/Q8R5M8/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 456 AA

Molecular Weight: 50 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MASAVLPSGSQCAAAAATAAAAAAPPGLRLRLLLLLLSAAALPTGDGQNLFTKDVTVIEGEVATISCQV
NKSDSVIQLLNPNRQTIYFRDFRPLKDSRFQLLNFSSELKVSLTNVSISDEGRYFCQLYTDPPQES
YTTITVLVPPRNLMIDIQKDTAVEGEEIEVNCTAMASKPATTIRWFKGNKELKGKSEVEEWSDMYTVT
SQLMLKVHKEDDGVPVICQVEHPAVTGNLQTQRYLEVQYKPQVHIQMTYPLQGLTREGDAFELTCE
AIGKPQPMVTWVRVDDEMPQHAVLSGPNLFINNLNKTDNGTYRCEASNIVGKAHSDYMLYVYDPP
TTIPPPTTTTTTTTTTTTTTTTILTIITDATTTEPAVHDSRAGEEGTIGAVDHAIVGGVVAVVVFAMLCLLIIL
GRYFARHKGTYFTHEAKGADDAADADTAIINAEGGQNNSEEKKEYFI

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Cell adhesion molecule 1 (Immunoglobulin superfamily member 4) (IgSF4) (Nectin-like protein 2) (NECL-2) (Spermatogenic immunoglobulin superfamily) (SgIgSF) (Synaptic cell adhesion molecule) (SynCAM) (Tumor suppressor in lung cancer 1) (TSLC-1) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Mediates homophilic cell-cell adhesion in a Ca(2+)-independent manner (PubMed:12202822, PubMed:12799182, PubMed:12826663). Also mediates heterophilic cell-cell adhesion with CADM3 and NECTIN3 in a Ca(2+)-independent manner (PubMed:12826663). Interaction with CRTAM promotes natural killer (NK) cell cytotoxicity and interferon-gamma (IFN-gamma) secretion by CD8+ T-cells in vitro as well as NK cell-mediated rejection of tumors expressing CADM1 in vivo (PubMed:15811952). In mast cells, may mediate attachment to and promote communication with nerves (By similarity). CADM1, together with MITF, is essential for development and survival of mast cells in vivo (PubMed:15158462, PubMed:16605125). By interacting with CRTAM and thus promoting the adhesion between CD8+ T-cells and CD8+ dendritic cells, regulates the retention of activated CD8+ T-cell within the draining lymph node (PubMed:19752223). Required for the intestinal retention of intraepithelial CD4+ CD8+ T-cells and, to a lesser extent, intraepithelial and lamina propria CD8+ T-cells and CD4+ T-cells (PubMed:24687959). Interaction with CRTAM promotes the adhesion to gut-associated CD103+ dendritic cells, which may facilitate the expression of gut-homing and adhesion molecules on T-cells and the conversion of CD4+ T-cells into CD4+ CD8+ T-cells (PubMed:24687959). Acts as a synaptic cell adhesion molecule and plays a role in the formation of dendritic spines and in synapse assembly (PubMed:12202822, PubMed:23209303). May be involved in neuronal migration, axon growth, pathfinding, and fasciculation on the axons of differentiating neurons (PubMed:15707673). May play diverse roles in the spermatogenesis including in the adhesion of spermatocytes and spermatids to Sertoli cells and for their normal differentiation into mature spermatozoa (PubMed:12606335, PubMed:16612000).

Subcellular Localization: Cell membrane ; Single-pass type I membrane protein . Synaptic cell membrane ; Single-pass type I membrane protein . Note=Localized to the basolateral plasma membrane of epithelial cells in gall bladder.

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.