



# Recombinant Protein Technical Manual

## Recombinant Mouse SynCam/CADM1 Protein (aa 48-388, His Tag)

RPES1969

### Product Data:

**Product SKU:** RPES1969

**Size:** 10µg

**Species:** Mouse

**Expression host:** Human Cells

**Uniprot:** Q8R5M8

### Protein Information:

**Molecular Mass:** 39.2 kDa

**AP Molecular Mass:** 6000 kDa

**Tag:** C-His

**Bio-activity:**

**Purity:** > 95% as determined by reducing SDS-PAGE.

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

**Storage:** Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°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 a 0.2 µm filtered solution of PBS, pH 7.4.

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

**Application:**

**Synonyms:** Cell adhesion molecule 1;Immunoglobulin superfamily member 4;IgSF4;Nectin-like protein 2;NECL-2;Synaptic cell adhesion molecule;SynCAM;Tumor suppressor in lung cancer 1;TSLC

## Immunogen Information:

**Sequence:** Gln48-His388

## Background:

Cell adhesion molecule 1 (CADM1) is a single-pass type I membrane protein and belongs to the nectin family. It contains 2 Ig-like C2-type (immunoglobulin-like) domains and 1 Ig-like V-type (immunoglobulin-like) domain. CADM1 acts as a tumor suppressor in non-small-cell lung cancer (NSCLC) cells. Interaction with CRTAM promotes natural killer (NK) cell cytotoxicity and interferon-gamma (IFN-gamma) secretion by CD8+ cells in vitro as well as NK cell-mediated rejection of tumors expressing CADM3 in vivo. CADM1 may contribute to the less invasive phenotypes of lepidic growth tumor cells. In mast cells, it may mediate attachment to and promote communication with nerves. CADM1, together with MIF, is essential for development and survival of mast cells in vivo. The protein acts as a synaptic cell adhesion molecule and plays a role in the formation of dendritic spines and in synapse assembly. It may be involved in neuronal migration, axon growth, pathfinding, and fasciculation on the axons of differentiating neurons. CADM1 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.