

CADM1/IGSF4A Protein, Mouse (377a.a, HEK293, His)

Cat. No.:	HY-P75598
Synonyms:	Cell adhesion molecule 1; IgSF4; NECL-2; SynCAM; TSLC-1
Species:	Mouse
Source:	HEK293
Accession:	Q8R5M8 (M1-H377)
Gene ID:	54725
Molecular Weight:	Approximately 38.5 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>CADM1/IGSF4A Protein orchestrates homophilic cell-cell adhesion in a Ca(2+)-independent manner, as substantiated by multiple studies. Furthermore, it engages in heterophilic cell-cell adhesion with CADM3 and NECTIN3, independent of calcium levels. Its interaction with CRTAM not only fosters natural killer (NK) cell cytotoxicity and interferon-gamma (IFN-gamma) secretion by CD8+ T-cells but also facilitates NK cell-mediated rejection of tumors expressing CADM1 in vivo. In mast cells, CADM1 may play a role in attachment to and communication with nerves, being indispensable for the development and survival of mast cells in vivo. The protein's involvement extends to regulating the retention of activated CD8+ T-cells within the draining lymph node and influencing the intestinal retention of intraepithelial CD4+ CD8+ T-cells. Additionally, CADM1 acts as a synaptic cell adhesion molecule, contributing to dendritic spine formation and synapse assembly, while potentially influencing neuronal migration, axon growth, pathfinding, and fasciculation. Its diverse roles also encompass participation in spermatogenesis, including the adhesion of spermatocytes and spermatids to Sertoli cells and their differentiation into mature spermatozoa. The intricate network of CADM1 interactions involves homodimerization, association with FARP1, CRTAM, EPB41L3/DAL1, MPP2, MPP3, and PALS2, providing a comprehensive framework for understanding its multifaceted contributions.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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