

Recombinant Human NECTIN4 Protein(Sumo Tag)

Catalog Number: PDEH100662

Note: Centrifuge before opening to ensure complete recovery of vial contents.

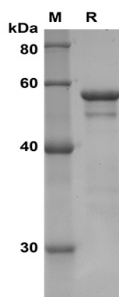
Description

Species	Human
Source	E.coli-derived Human NECTIN4 protein Gly32-Ser349, with an N-terminal Sumo
Calculated MW	51.0 kDa
Observed MW	56 kDa
Accession	Q96NY8
Bio-activity	Not validated for activity

Properties

Purity	> 90% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°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 in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Human NECTIN4 proteins, 2µg/lane of Recombinant Human NECTIN4 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 56 KD

Background

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Toll-free: 1-888-852-8623
Web: www.elabscience.com

Tel: 1-832-243-6086
Email: techsupport@elabscience.com

Fax: 1-832-243-6017

Rev. V1.2

Nectin-4 (gene name PVRL4, poliovirus receptor-like 4) is a 66 kDa type I transmembrane glycoprotein belonging to the Nectin family of Ig superfamily proteins. The Latin word necto means “to connect”, indicating the role of nectins in Ca²⁺-independent cell-cell adhesion. Nectin-4 forms homodimers in cis, followed by interactions in trans with Nectin-1 or -4. Human Nectin-4 mRNA is normally expressed in the placenta, especially in endothelial cells, while in the mouse it is found in the embryo, lung, testis and brain. Human Nectin-4 cDNA encodes 510 amino acids (aa), including a 31 aa signal sequence, a 318 aa extracellular domain (ECD), a 21 aa transmembrane segment (TM), and a 140 aa cytoplasmic region. Nectin ECDs contain three Ig-like domains: an N-terminal V-type that mediates ligand binding, and two C2-type. One Nectin-4 isoform lacks aa 412-436 in the cytoplasmic domain (1). In many human ductal breast or non-small cell lung carcinomas, Nectin-4 is upregulated and a soluble 43 kDa form is found in the plasma. This form is generated from the membrane protein via the action of TACE/ADAM-17. The extracellular domain of human Nectin-4 shares 91%, 92%, 93%, 91% and 90% amino acid sequence homology with the corresponding regions of mouse, rat, canine, porcine and bovine Nectin-4, respectively. In forming adherens junctions, trans interactions of Nectin-4 initiate cell-cell interactions and recruit intracellular cadherins through afadin and other junctional proteins. These interactions organize the actin cytoskeleton, strengthen attachment to basement membrane and promote further cell-cell connections. In humans, mutation of Nectin-4 has been correlated with ectodermal dysplasia-syndactyly syndrome, indicating a role for Nectin-4 in human development.