

Nectin-3 Protein, Human, Recombinant (hFc)

General Information

Synonyms:	CDw113;FLJ90624;PVRL3;DKFZp566B0846;nectin-3;PRR3;CD113;PPR3;PVRR3;poliovirus receptor-related 3
Protein Construction:	A DNA sequence encoding the human NECTIN3 (NP_056295.1) (Met1-Asp400) was expressed with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Gly 58
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q9NQS3-1
Molecular Weight:	64.4 kDa (predicted)

QC Testing

Biological Activity:	Measured by its binding ability in a functional ELISA. Immobilized PVRL1/NECTIN1 Protein, Human, Recombinant (His Tag) at 2 µg/ml (100 µl/well) can bind Nectin 3 Protein, Human, Recombinant (ECD, hFc Tag), the EC50 of Nectin 3 Protein, Human, Recombinant (ECD, hFc Tag) is 30-140 ng/mL.
Purity:	> 95 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Poliovirus receptor-related 3 (PVRL3), also known as Nectin-3 and CD113, is a member of the nectin family. PVRL3/Nectin-3 is an 83 kDa, type I transmembrane glycoprotein. Its precursor is 549 amino acids (aa) in length

and contains an extended signal sequence of 57 aa, an extracellular domain (ECD) of 347 aa, a transmembrane segment of 21 aa, and a cytoplasmic region of 124 aa. Nectin-3 has three splicing variants, nectin-3alpha (biggest), -3beta (middle), and -3gamma (smallest). It is predominantly expressed in testis and placenta as well as in various cell lines, including epithelial cell lines. PVRL3/Nectin-3 plays a role in cell-cell adhesion through heterophilic trans-interactions with nectin-like proteins or nectins, such as trans-interaction with PVRL2/Nectin-2 at Sertoli-spermatid junctions. PVRL3/Nectin-3 is thus involved in the formation of cell-cell junctions, including adherens junctions and synapses. It has been shown to induce endocytosis-mediated down-regulation of PVR from the cell surface, resulting in the reduction of cell movement and proliferation.

Reference

Satoh-Horikawa, et al. (2000). Nectin-3, a new member of immunoglobulin-like cell adhesion molecules that shows homophilic and heterophilic cell-cell adhesion activities. *J Biol Chem (UNITED STATES)* . 275 (14): 10291-9.

Reymond N, et al. (2000). Human nectin3/PRR3: a novel member of the PVR/PRR/nectin family that interacts with afadin. *Gene (NETHERLANDS)*. 255 (2): 347-55.

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