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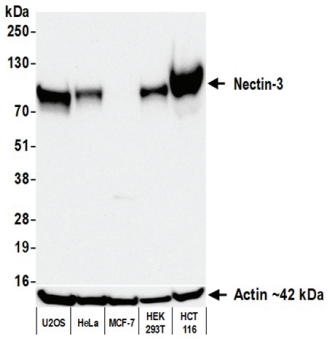
Nectin-3

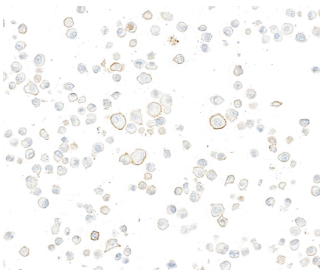
Product Number: A700-307
Reactivity: Human
Validated Applications: Flow Cyt, ICC, IP, WB
Full Name: Nectin cell adhesion molecule 3
Gene ID: 25945
Uniprot ID: Q9NQS3
Alternative Names: PVRL3, CD113

Nectin-3 is one of four members of the nectin family of cell adhesion molecules which all have an extracellular region with three Ig-like domains, a single transmembrane region, and a cytoplasmic tail. The cytoplasmic tail is used to bind to afadin, an F-actin binding protein, thereby linking nectins to the actin cytoskeleton. Each nectin forms homo-cis-dimers and the subsequently forms intercellular homo-trans-dimers. Nectin-3 can also form hetero-trans-dimers with nectin-1 and nectin-2. Nectin-3 interactions are critical for the formation of adherens junctions in epithelial and endothelial tissues, puncta adherentia junctions in nervous tissue, and heterotypic intercellular junctions between specialized cells and their surrounding epithelium. Alterations in nectin-3 expression or function have been linked to neurodevelopmental conditions such as autism spectrum disorders and schizophrenia.[1–3]

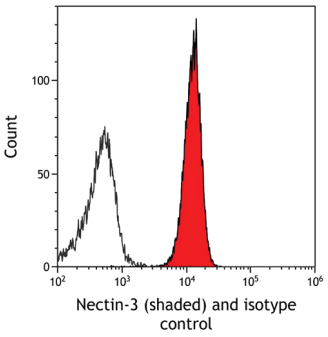
Featured Applications



Detection of human Nectin-3 by western blot.
Antibody: A700-307 used at 1:1000.



Detection of human Nectin-3 by immunocytochemistry.
Sample: FFPE section of A549 cells.
Antibody: A700-307.



Detection of human Nectin-3 (shaded) in U2OS cells by flow cytometry.
Antibody: A700-307 used at 1µL per 10^6 cells.

References:
1. Takai Y, Nakanishi H. Nectin and afadin: novel organizers of intercellular junctions. J Cell Sci. 2003;116(1):17-27. doi:10.1242/jcs.00167
2. Biederer T, Stagi M. Signaling by synaptogenic molecules. Curr Opin Neurobiol. 2008;18(3):261-269. doi:10.1016/j.conb.2008.07.014
3. Takai Y, Irie K, Shimizu K, Sakisaka T, Ikeda W. Nectins and nectin-like molecules: Roles in cell adhesion, migration, and polarization. Cancer Sci. 2003;94(8):655-667. doi:10.1111/j.1349-7006.2003.tb01499.x

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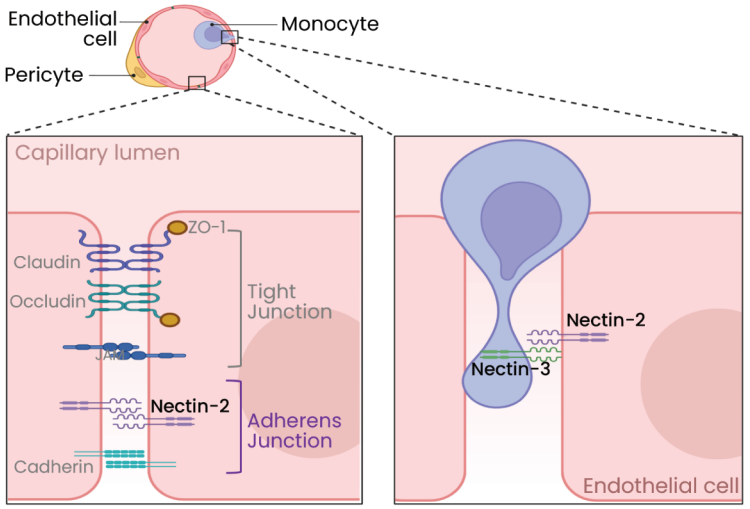
Adherens Junctions

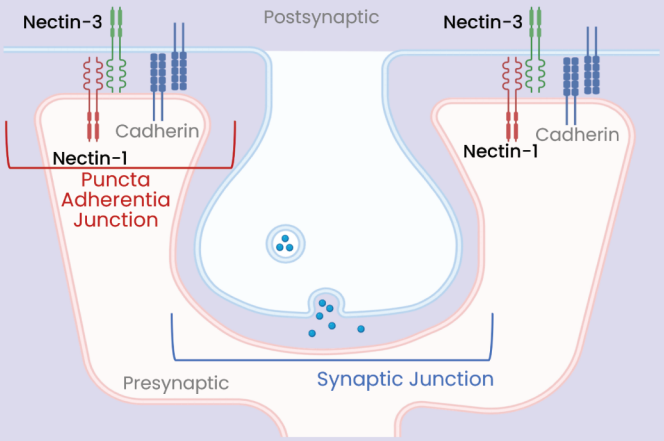
Adherens junctions play a critical role in the formation and maintenance of tight junctions. They are found in endothelial and epithelial tissues.



Leukocyte Migration

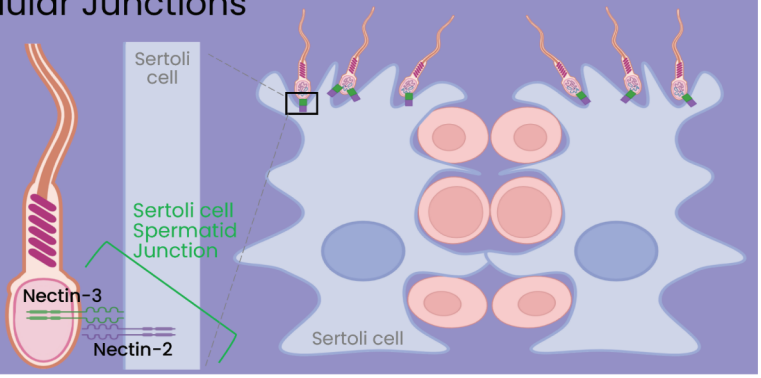
Puncta Adherentia Junctions

Synapses contain two types of junctions: 1. synaptic junctions, the active regions where neurotransmitters localize, and 2. puncta adherentia junctions, mechanical adhesions sites that strengthen connections around the active zones.



Heterotypic Intercellular Junctions

Sertoli cell – spermatid junctions are an example of heterotypic intercellular junctions between seminiferous epithelium in the testes and germ cells. Similar junctions form between specialized sensory cells and supporting cells in sensory epithelia.



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