abcam

ab16913

Anti-Nectin 3 antibody [103-A1]

Key facts

Isotype	IgG2a
Host species	Rat
Storage buffer	Preservative: 0.02% Sodium azide Constituents: PBS, 0.1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Mouse Nectin3 aa 50 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link Q9JLB9
Clone number	103-A1
Purification technique	Affinity purification Protein G
Concentration	0.1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Provided as a 0.2µm purified antibody solution

Reactivity data

IP

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Rat, Human
Dilution info	-
Notes	-

Flow Cyt

Expected

Species	Mouse
Dilution info	-
Notes	ab18450 - Rat monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Rat
Dilution info	-
Notes	ab18450 - Rat monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Species	Human
Dilution info	-
Notes	ab18450 - Rat monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

WB

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

FuncS

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Rat, Human
Dilution info	-
Notes	-

ICC/IF

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Rat, Human
Dilution info	-
Notes	-

IHC-Fr

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Rat, Human
Dilution info	-

Notes	-

Target data

See full target information Nectin3

Function	Cell adhesion molecule that promotes cell-cell adhesion through heterophilic trans-interactions with nectins-like or other nectins, such as trans-interaction with NECTIN2 at Sertoli-spermatid junctions (PubMed:10744716, PubMed:11827984, PubMed:12121624, PubMed:12558799, PubMed:15328010, PubMed:16128743, PubMed:21798896). Trans-interaction with PVR induces activation of CDC42 and RAC small G proteins through common signaling molecules such as SRC and RAP1 (PubMed:16128743). Induces endocytosis-mediated down-regulation of PVR from the cell surface, resulting in reduction of cell movement and proliferation (PubMed:16128743). Involved in axon guidance by promoting contacts between the commissural axons and the floor plate cells (PubMed:15328010). Also involved in the formation of cell-cell junctions, including adherens junctions and synapses (PubMed:11827984). Promotes formation of checkerboard-like cellular pattern of hair cells and supporting cells in the auditory epithelium via heterophilic interaction with NECTIN1: NECTIN1 is present in the membrane of hair cells and associates with NECTIN3 on supporting cells, thereby mediating heterotypic adhesion between these two cell types (PubMed:21798896). Plays a role in the morphology of the ciliary body (PubMed:15728677).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Nectin-3 also known as CD113 or PVRL3 is an immunoglobulin-like cell adhesion molecule. It plays an important role in cell-cell adhesion by forming homo- and heterophilic trans-dimers with other nectins and nectin-like molecules. Nectin-3 has a molecular mass of approximately 83 kDa. Its expression is generally observed in neural tissues such as the brain as well as in testis and various

	epithelial tissues. This distribution allows it to contribute to diverse cellular interactions critical for tissue organization and development.
Biological function summary	Nectin-3 participates in the formation and maintenance of adherens junctions by interacting with cadherins and actin filaments. It is a member of the Nectin family which includes Nectin-1 Nectin-2 and Nectin-4 known for their roles in cell adhesion. The function of Nectin-3 is integral to the establishment of tight junctions contributing to the structural integrity and function of epithelial and endothelial cells. It often works as part of a complex with afadin which supports its connection to the actin cytoskeleton.
Pathways	Nectin-3 acts in the formation of synapses and is involved in signaling pathways related to cell adhesion such as the actin cytoskeleton regulation pathway. It plays a significant role in the activation of the Ras and Rac small GTPase signaling pathways facilitating changes in cytoskeletal dynamics during cell movement and morphogenesis. Nectin-3 closely associates with other proteins in the Nectin family such as Nectin-1 and Nectin-2 in these pathways enhancing intercellular communication.
Associated diseases and disorders	Mutations or dysregulation of Nectin-3 have been linked to conditions like mental retardation and developmental abnormalities. It is particularly relevant in the context of intellectual disability where alterations in cell adhesion and signaling can impair proper neuronal connectivity and brain function. Furthermore Nectin-3 interacts with PVRL proteins highlighting its possible involvement in cancer progression and metastasis through altered cell adhesion properties.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

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