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NCLN Antibody

Catalog # ASC11465

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q969V3
Other Accession	NP_064555, 51873031
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	62974
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	NCLN antibody can be used for detection of NCLN by Western blot at 0.5 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 2.5 g/mL.

Additional Information

Gene ID	56926
Other Names	Nicalin, Nicastrin-like protein, NCLN
Target/Specificity	NCLN;
Reconstitution & Storage	NCLN antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	NCLN Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NCLN {ECO:0000303|PubMed:36261522, ECO:0000312|HGNC:HGNC:26923}
Function	Component of the multi-pass translocon (MPT) complex that mediates insertion of multi-pass membrane proteins into the lipid bilayer of membranes (PubMed:32820719, PubMed:36261522). The MPT complex takes over after the SEC61 complex: following membrane insertion of the first few transmembrane segments of proteins by the SEC61 complex, the MPT complex occludes the lateral gate of the SEC61 complex to promote insertion of subsequent transmembrane regions (PubMed:36261522). May antagonize Nodal signaling and subsequent organization of axial structures during mesodermal patterning, via its interaction with NOMO (By similarity).

Cellular Location	Endoplasmic reticulum membrane; Single-pass membrane protein
Tissue Location	Highly expressed in pancreas and skeletal muscle and, at lower levels, in heart.

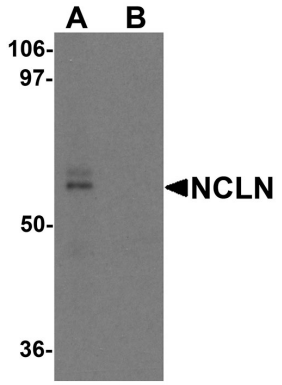
Background

NCLN Antibody: Nicalin, along with its binding partner Nomo, is a novel signaling antagonist to Nodals, signaling factors of the TGF-β superfamily that play a key role in vertebrate development. Nicalin is distantly related to Nicastrin, a component of the Alzheimer's disease-associated gamma-secretase, and is thought to have a similar function. Another protein, TMEM147, has also been recently identified as associating with Nicalin and NOMO as part of the gamma-secretase-like complex.

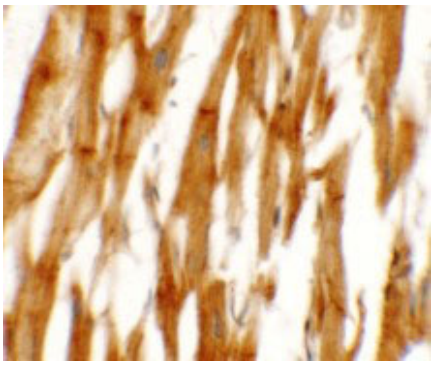
References

Haffner C, Frauli M, Topp S, et al. Nicalin and its binding partner Nomo are novel Nodal signaling antagonists. EMBO J. 2004; 23:3041-50.
Dettmer U, Kuhn PH, Abou-Ajram C, et al. Transmembrane protein 147 (TMEM147) is a novel component of the Nicalin-NOMO protein complex. J. Biol. Chem. 2010; 285:26174-81.

Images

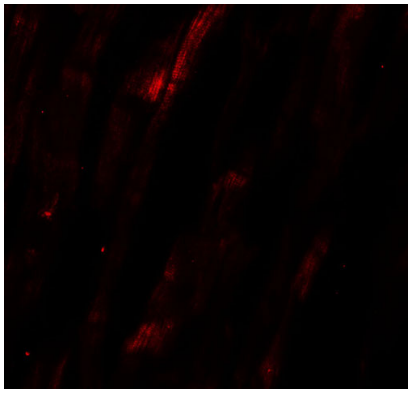


Western blot analysis of NCLN in mouse heart tissue lysate with NCLN antibody at 0.5 µg/mL in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of NCLN in human heart tissue with NCLN antibody at 2.5 µg/mL.

Immunofluorescence of NCLN in human heart tissue with NCLN antibody at 20 µg/mL.



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