

NPC / NPC1 Antibody (C-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS14705**Specification**

NPC / NPC1 Antibody (C-Terminus) - Product Information

Application	IF, WB, IHC
Primary Accession	O15118
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	142kDa KDa

NPC / NPC1 Antibody (C-Terminus) - Additional Information**Gene ID** 4864**Other Names**

Niemann-Pick C1 protein, NPC1

Target/Specificity

Human NPC1

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions

NPC / NPC1 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

NPC / NPC1 Antibody (C-Terminus) - Protein Information**Name** NPC1 ([HGNC:7897](#))**Function**

Intracellular cholesterol transporter which acts in concert with NPC2 and plays an important role in the egress of cholesterol from the endosomal/lysosomal compartment (PubMed:9211849, PubMed:9927649, PubMed:10821832, PubMed:18772377, PubMed:27238017, PubMed:12554680). Unesterified cholesterol that has been released from LDLs in the lumen of the late endosomes/lysosomes is transferred by NPC2 to the cholesterol-binding pocket in the N-terminal domain of NPC1 (PubMed:9211849, PubMed:9927649, PubMed:18772377).

PubMed:19563754, PubMed:27238017, PubMed:28784760, PubMed:27378690). Cholesterol binds to NPC1 with the hydroxyl group buried in the binding pocket (PubMed:19563754). Binds oxysterol with higher affinity than cholesterol. May play a role in vesicular trafficking in glia, a process that may be crucial for maintaining the structural and functional integrity of nerve terminals (Probable). Inhibits cholesterol-mediated mTORC1 activation through its interaction with SLC38A9 (PubMed:28336668).

Cellular Location

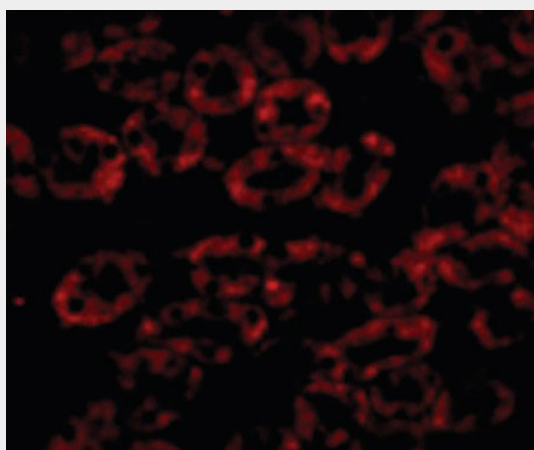
Late endosome membrane; Multi-pass membrane protein. Lysosome membrane; Multi-pass membrane protein

NPC / NPC1 Antibody (C-Terminus) - Protocols

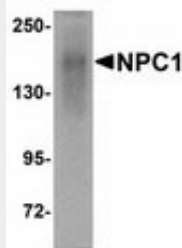
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

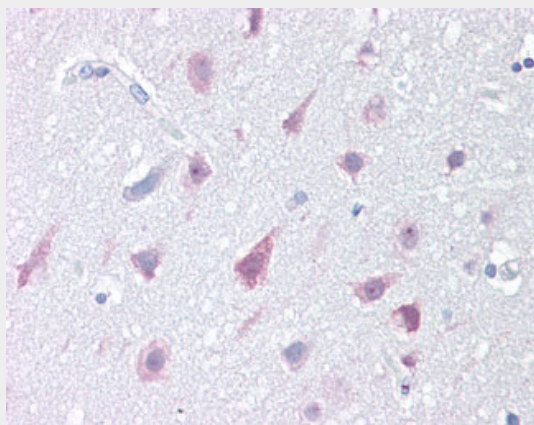
NPC / NPC1 Antibody (C-Terminus) - Images



Immunofluorescence of NPC1 in Mouse Kidney cells with NPC1 antibody at 20 ug/ml.



Western blot of NPC1 in human kidney tissue lysate with NPC1 antibody at 1 ug/ml.



Anti-NPC1 antibody IHC of human brain, cortex.

NPC / NPC1 Antibody (C-Terminus) - Background

Intracellular cholesterol transporter which acts in concert with NPC2 and plays an important role in the egress of cholesterol from the endosomal/lysosomal compartment. Both NPC1 and NPC2 function as the cellular 'tag team duo' (TTD) to catalyze the mobilization of cholesterol within the multivesicular environment of the late endosome (LE) to effect egress through the limiting bilayer of the LE. NPC2 binds unesterified cholesterol that has been released from LDLs in the lumen of the late endosomes/lysosomes and transfers it to the cholesterol-binding pocket of the N-terminal domain of NPC1. Cholesterol binds to NPC1 with the hydroxyl group buried in the binding pocket and is exported from the limiting membrane of late endosomes/ lysosomes to the ER and plasma membrane by an unknown mechanism. Binds oxysterol with higher affinity than cholesterol. May play a role in vesicular trafficking in glia, a process that may be crucial for maintaining the structural and functional integrity of nerve terminals.

NPC / NPC1 Antibody (C-Terminus) - References

- Carstea E.D.,et al.Science 277:228-231(1997).
- Morris J.A.,et al.Biochem. Biophys. Res. Commun. 261:493-498(1999).
- Bauer P.,et al.Hum. Mutat. 19:30-38(2002).
- Ota T.,et al.Nat. Genet. 36:40-45(2004).
- Nusbaum C.,et al.Nature 437:551-555(2005).