10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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 throught its interaction with SLC38A9 (PubMed:28336668).

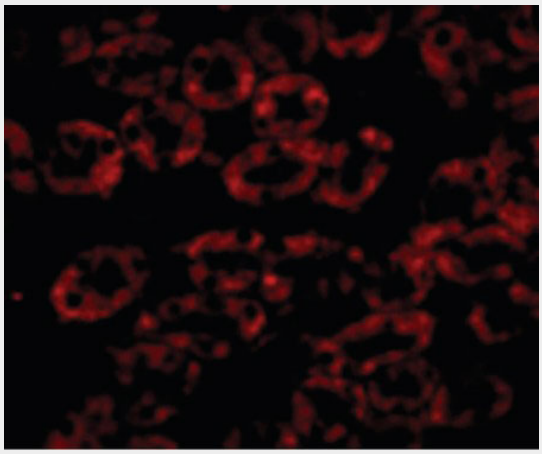
Cellular Location
Late endosome membrane; Multi-pass membrane protein. Lysosome membrane; Multi-pass membrane protein

NPC / NPC1 Antibody (C-Terminus) - Protocols

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

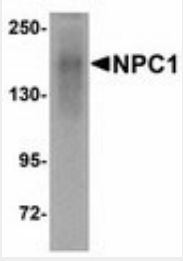
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NPC / NPC1 Antibody (C-Terminus) - Images

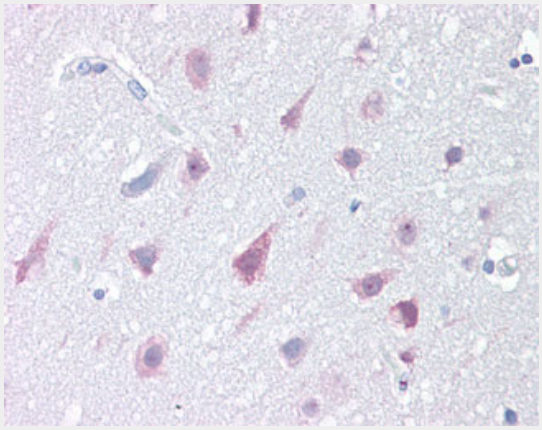


Immunofluorescence of NPC1 in Mouse Kidney cells with NPC1 antibody at 20 ug/ml.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



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).