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Anti-NPC / NPC1 Antibody (clone 4H2)

Mouse Anti Human Monoclonal Antibody
Catalog # ALS18228

Product Information

Application	WB, IHC-P, E
Primary Accession	O15118
Predicted	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Names	4H2
Calculated MW	142167
Concentration (mg/ml)	0.5 mg/ml

Additional Information

Gene ID	4864
Alias Symbol	NPC1
Other Names	NPC1, NPC, Niemann-Pick C1 protein, Niemann-Pick disease, type C1
Target/Specificity	Human NPC / NPC1
Reconstitution & Storage	Protein A purified
Precautions	Anti-NPC / NPC1 Antibody (clone 4H2) is for research use only and not for use in diagnostic or therapeutic procedures.

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:10821832, PubMed:12554680, PubMed:18772377, PubMed:27238017, PubMed:9211849, PubMed:9927649). 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:18772377, PubMed:19563754, PubMed:27238017, PubMed:27378690, PubMed:28784760, PubMed:9211849, PubMed:9927649). Cholesterol binds to NPC1 with the hydroxyl group buried in the binding pocket (PubMed:19563754). Mediates cholesterol transfer from lysosomes to endoplasmic reticulum by tethering endosomal/lysosomal compartments and endoplasmic reticulum membrane contact sites where it interacts with sterol

transport protein GRAMD1B (PubMed:31537798). 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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.