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NPC1 Antibody (monoclonal) (M02)

Mouse monoclonal antibody raised against a partial recombinant NPC1.
Catalog # AT3083a

Product Information

Application	WB, E
Primary Accession	O15118
Other Accession	BC063302
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	4H2
Calculated MW	142167

Additional Information

Gene ID	4864
Other Names	Niemann-Pick C1 protein, NPC1
Target/Specificity	NPC1 (AAH63302, 151 a.a. ~ 250 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	NPC1 Antibody (monoclonal) (M02) is for research use only and not for use in diagnostic or therapeutic procedures.

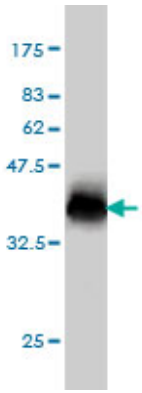
Background

This gene encodes a large protein that resides in the limiting membrane of endosomes and lysosomes and mediates intracellular cholesterol trafficking via binding of cholesterol to its N-terminal domain. It is predicted to have a cytoplasmic C-terminus, 13 transmembrane domains, and 3 large loops in the lumen of the endosome - the last loop being at the N-terminus. This protein transports low-density lipoproteins to late endosomal/lysosomal compartments where they are hydrolized and released as free cholesterol. Defects in this gene cause Niemann-Pick type C disease, a rare autosomal recessive neurodegenerative disorder characterized by over accumulation of cholesterol and glycosphingolipids in late endosomal/lysosomal compartments.

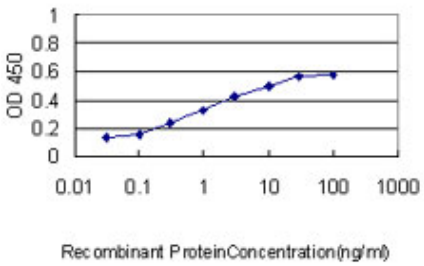
References

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.Evaluating the discriminative power of multi-trait genetic risk scores for type 2 diabetes in a northern Swedish population. Fontaine-Bisson B, et al. Diabetologia, 2010 Oct. PMID 20571754.Epistasis between intracellular cholesterol trafficking-related genes (NPC1 and ABCA1) and Alzheimer's disease risk. Rodr?guez-Rodr?guez E, et al. J Alzheimers Dis, 2010 Jan 1. PMID 20571217.Increased expression of the lysosomal cholesterol transporter NPC1 in Alzheimer's disease. K?gedal K, et al. Biochim Biophys Acta, 2010 Aug. PMID 20497909.Niemann-Pick C1 modulates hepatic triglyceride metabolism and its genetic variation contributes to serum triglyceride levels. Uronen RL, et al. Arterioscler Thromb Vasc Biol, 2010 Aug. PMID 20489167.

Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (36.63 KDa) .



Detection limit for recombinant GST tagged NPC1 is approximately 0.03ng/ml as a capture antibody.

Citations

- Genetic and chemical correction of cholesterol accumulation and impaired autophagy in hepatic and neural cells derived from Niemann-Pick Type C patient-specific iPS cells.