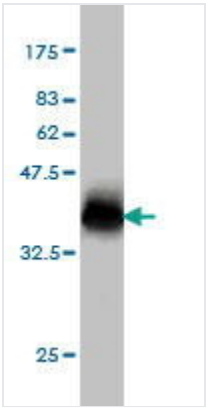
NPC1 Antibody – Mouse Monoclonal

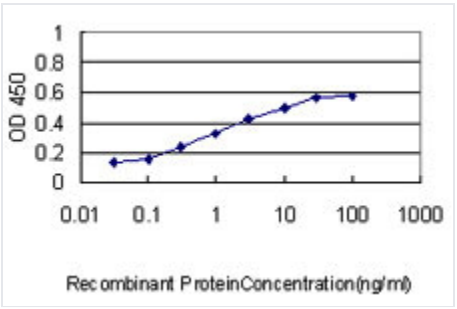
PRODUCT OVERVIEW

Product Name	NPC1, Monoclonal Antibody
Full Product Name	NPC1 (Niemann-Pick C1 Protein) (PE)
Product Gene Name	anti-NPC1 antibody
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	4H2
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with R-Phycoerythrin (PE).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human NPC1.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amo only prior to immediate use. Further dilutions can be made in assay buffer. Caution: PE conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Immunogen	Partial recombinant corresponding to aa151-250 from human NPC1 (AAH63302) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	GFANAMYNACRDVEAPSSNDKALGLLCGKDADACNATNWIEYMFNKDNGQAPFTITPVFSDFPVHGMEPMNNATKGCDESVDEVTAPCSCQDCSIVCG
Conjugate	PE
Product Categories/Family for anti-NPC1 antibody	Antibodies; Disease Markers
Applications Tested/Suitable for anti-NPC1 antibody	ELISA (EIA), Western Blot (WB)
Application Notes for anti-NPC1 antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-NPC1 antibody	Niemann-Pick C1 (NPC1) disease is characterized by cholesterol accumulation in lysosomes and aberrant feedback regulation of cellular cholesterol homeostasis. The gene responsible for the disease is NPC1, which encodes a protein with five transmembrane domains. NPC1 protein has homology with the resistance-nodulation-division (RND) family of prokaryotic permeases and may normally function as a transmembrane efflux pump. NPC1 uses proton motive force to remove accumulated acriflavine from the endosomal/lysosomal (E/L) system. NPC1 can function to transport lipophilic molecules but not cholesterol, out of the E/L system. The fact that NPC1 can transport acriflavine and fatty acids suggest that this permease may have a "multidru transport function, part of which is its housekeeping role in cellular cholesterol homeostasis. Expression of NPC1 in E. coli facilitated the transport of acriflavine across the plasma membrane, causing cytosolic accumulation and resulting in transport of oleic acid, but not cholesterol-oleate across the plasma membrane, establishing NPC1 as a eukaryotic member of the RND permease family.

Other Notes	Small volumes of anti-NPC1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry and additional dry ice fee may apply.
Searchable Terms for NPC1 purchase	MBS6159141 is an antibody targeting NPC1. Also known as NPC1 (Niemann-Pick C1 Protein) (PE). Reactive in Human. Host: Mouse.



Western Blot (WB) of anti-NPC1 antibody
Western Blot detection against Immunogen (36.63kD).



Testing Data of anti-NPC1 antibody
Detection limit for recombinant GST tagged NPC1 is ~0.03ng/ml as a capture antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NPC1. It may not necessarily be applicable to this product.

NCBI GI #	38649259
NCBI GeneID	4864
NCBI Accession #	BC063302
NCBI Related Accession #	AAH63302
UniProt Related Accession #	O15118
NCBI Official Full Name	Homo sapiens Niemann-Pick disease, type C1, mRNA
NCBI Official Synonym Full Names	NPC intracellular cholesterol transporter 1
NCBI Official Symbol	NPC1
NCBI Official Synonym Symbols	NPC; POGZ; SLC65A1
Protein Family	Niemann-Pick C1 protein
NCBI Protein Information	NPC intracellular cholesterol transporter 1
NCBI Summary for NPC1	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.[provided by RefSeq, Aug 2009]
Research Articles on NPC1	**1.** Study determines the sequence-to-function-to-structure relationships of the NPC1 polypeptide fold required for membrane trafficking and generation of a tunnel that mediates cholesterol flux in late endosomal/lysosomal (LE/Ly) compartments.

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