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KD-Validated Anti-NPC2 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI2106

Specification

KD-Validated Anti-NPC2 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	P61916
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 17 kDa, observed, 17 kDa KDa**
Gene Name	**NPC2**
Aliases	**NPC2; NPC Intracellular Cholesterol Transporter 2; HE1; EDDM1; Niemann-Pick Disease Type C2 Protein; Human Epididymis-Specific Protein 1; Epididymal Protein 1; NP-C2; Epididymis Secretory Sperm Binding Protein; Tissue-Specific Secretory Protein; Epididymal Secretory Protein E1; Niemann-Pick Disease, Type C2; He1**
Immunogen	**Recombinant protein of human Niemann Pick C2**

KD-Validated Anti-NPC2 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**10577**

Other Names
NPC intracellular cholesterol transporter 2 {ECO:0000312|HGNC:HGNC:14537}, Epididymal secretory protein E1, Human epididymis-specific protein 1, He1, Niemann-Pick disease type C2 protein, NPC2 (HGNC:14537), HE1

KD-Validated Anti-NPC2 Rabbit Monoclonal Antibody - Protein Information

Name NPC2 (HGNC:14537)

Synonyms HE1

Function
Intracellular cholesterol transporter which acts in concert with NPC1 and plays an important role in the egress of cholesterol from the lysosomal compartment (PubMed:11125141, PubMed:15937921, PubMed:17018531, PubMed:18772377, PubMed:29580834). 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:17018531, PubMed:18772377, PubMed:27238017). May bind and mobilize cholesterol that is associated with membranes (PubMed:18823126). NPC2 binds cholesterol with a 1:1 stoichiometry (PubMed:17018531). Can bind a variety of sterols, including lathosterol, desmosterol and the plant sterols stigmasterol and beta-sitosterol (PubMed:17018531). The secreted form of NCP2 regulates biliary cholesterol secretion via stimulation of ABCG5/ABCG8-mediated cholesterol transport (By similarity).

Cellular Location
Secreted. Endoplasmic reticulum. Lysosome Note=Interaction with cell-surface M6PR mediates endocytosis and targeting to lysosomes.

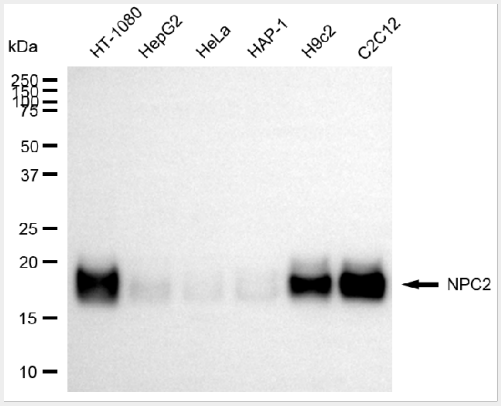
Tissue Location
Detected in gallbladder bile (PubMed:21315718). Detected in fibroblasts, kidney, liver, spleen, small intestine, placenta and testis (at protein level) (PubMed:11125141). Epididymis

KD-Validated Anti-NPC2 Rabbit Monoclonal Antibody - 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

KD-Validated Anti-NPC2 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-NPC2 antibody (Cat#AGI2106). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-NPC2 antibody (Cat#AGI2106, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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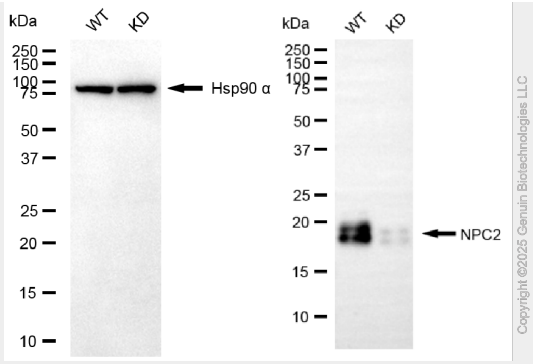
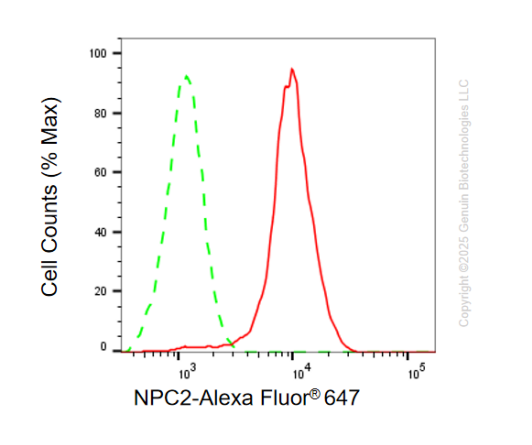
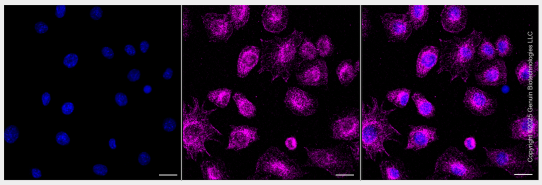


Western blotting analysis using anti-NPC2 antibody (Cat#AGI2106). NPC2 expression in wild-type (WT) and NPC2 knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-NPC2 antibody (Cat#AGI2106, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of NPC2 expression in C2C12 cells using anti-NPC2 antibody (Cat#AGI2106, 1:1,000). Green, isotype control; red, NPC2.



Immunocytochemical staining of C2C12 cells with anti-NPC2 antibody (Cat#AGI2106, 1:1,000). Nuclei were stained blue with DAPI; NPC2 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.