

# NPC2 Antibody (C-term) Blocking Peptide

Synthetic peptide Catalog # BP6755b

# **Specification**

# NPC2 Antibody (C-term) Blocking Peptide - Product Information

**Primary Accession** 

P61916

# NPC2 Antibody (C-term) Blocking Peptide - Additional Information

**Gene ID 10577** 

#### **Other Names**

Epididymal secretory protein E1, Human epididymis-specific protein 1, He1, Niemann-Pick disease type C2 protein, NPC2, HE1

# Target/Specificity

The synthetic peptide sequence used to generate the antibody <a

href=/products/AP6755b>AP6755b</a> was selected from the C-term region of human NPC2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

### **Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

#### **Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

### NPC2 Antibody (C-term) Blocking Peptide - 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:<a

href="http://www.uniprot.org/citations/17018531" target="\_blank">17018531</a>, PubMed:<a

href="http://www.uniprot.org/citations/11125141" target="blank">11125141</a>, PubMed:<a

href="http://www.uniprot.org/citations/18772377" target="blank">18772377</a>, PubMed:<a

href="http://www.uniprot.org/citations/29580834" target="blank">29580834</a>, PubMed:<a

href="http://www.uniprot.org/citations/29300054" target="\_blank">159300054"/d>, rubMed. \u00e4d href="http://www.uniprot.org/citations/15937921" target="\_blank">15937921</a>). 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

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(PubMed:<a href="http://www.uniprot.org/citations/17018531" target="\_blank">17018531</a>, PubMed:<a href="http://www.uniprot.org/citations/18772377" target="\_blank">18772377</a>, PubMed:<a href="http://www.uniprot.org/citations/27238017" target="\_blank">27238017</a>).

May bind and mobilize cholesterol that is associated with membranes (PubMed:<a

href="http://www.uniprot.org/citations/18823126" target="\_blank">18823126</a>). NPC2 binds cholesterol with a 1:1 stoichiometry (PubMed:<a

href="http://www.uniprot.org/citations/17018531" target="\_blank">17018531</a>). Can bind a variety of sterols, including lathosterol, desmosterol and the plant sterols stigmasterol and beta-sitosterol (PubMed:<a href="http://www.uniprot.org/citations/17018531" target="http://www.uniprot.org/citations/17018531" target="http://www.uniprot.org/citations/17018531"

target="\_blank">17018531</a>). 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

### NPC2 Antibody (C-term) Blocking Peptide - Protocols

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

### • Blocking Peptides

NPC2 Antibody (C-term) Blocking Peptide - Images

NPC2 Antibody (C-term) Blocking Peptide - Background

NPC2 contains a lipid recognition domain. This protein may function in regulating the transport of cholesterol through the late endosomal/lysosomal system.

# NPC2 Antibody (C-term) Blocking Peptide - References

Araki, N., et.al., Biochem. Biophys. Res. Commun. 388 (2), 290-296 (2009)