

SCAP Antibody (N-term)
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8668b

Specification

SCAP Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	Q12770
Reactivity	Human
Host	Mouse
Clonality	monoclonal
Isotype	IgG1, κ
Calculated MW	139729

SCAP Antibody (N-term) - Additional Information

Gene ID 22937

Other Names

Sterol regulatory element-binding protein cleavage-activating protein, SCAP, SREBP cleavage-activating protein, SCAP, KIAA0199

Target/Specificity

This SCAP antibody is generated from a mouse immunized with a KLH conjugated synthetic peptide between 49-83 amino acids from the N-terminal region of human SCAP.

Dilution

WB~~1:4000

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SCAP Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

SCAP Antibody (N-term) - Protein Information

Name SCAP {ECO:0000303|PubMed:10570913, ECO:0000312|HGNC:HGNC:30634}

Function Escort protein required for cholesterol as well as lipid homeostasis (By similarity). Regulates export of the SCAP-SREBP complex from the endoplasmic reticulum to the Golgi upon low cholesterol, thereby regulating the processing of sterol regulatory element-binding proteins

(SREBPs) SREBF1/SREBP1 and SREBF2/SREBP2 (By similarity). At high sterol concentrations, formation of a ternary complex with INSIG (INSIG1 or INSIG2) leads to mask the ER export signal in SCAP, promoting retention of the complex in the endoplasmic reticulum (By similarity). Low sterol concentrations trigger release of INSIG, a conformational change in the SSD domain of SCAP, unmasking of the ER export signal, promoting recruitment into COPII-coated vesicles and transport of the SCAP-SREBP to the Golgi: in the Golgi, SREBPs are then processed, releasing the transcription factor fragment of SREBPs from the membrane, its import into the nucleus and up-regulation of LDLR, INSIG1 and the mevalonate pathway (By similarity). Binds cholesterol via its SSD domain (By similarity).

Cellular Location

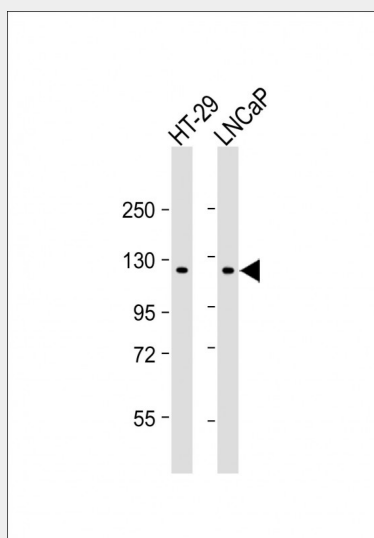
Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus membrane; Multi-pass membrane protein. Cytoplasmic vesicle, COPII- coated vesicle membrane {ECO:0000250|UniProtKB:P97260}; Multi-pass membrane protein. Note=Moves from the endoplasmic reticulum to the Golgi in the absence of sterols (By similarity) Requires the presence of SPRING1 for proper localization to endoplasmic reticulum (PubMed:32111832). {ECO:0000250|UniProtKB:P97260, ECO:0000269|PubMed:32111832}

SCAP Antibody (N-term) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SCAP Antibody (N-term) - Images



All lanes : Anti-SCAP Antibody (N-term) at 1:4000 dilution Lane 1: HT-29 whole cell lysate Lane 2: LNCaP whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 140 kDa Blocking/Dilution buffer: 5% NFDm/TBST.

SCAP Antibody (N-term) - Background

Escort protein required for cholesterol as well as lipid homeostasis. Regulates export of the SCAP/SREBF complex from the ER upon low cholesterol. Formation of a ternary complex with INSIG at high sterol concentrations leads to masking of an ER-export signal in SCAP and retention of the complex in the ER. Low sterol concentrations trigger release of INSIG, a conformational change in the SSC domain of SCAP, unmasking of the ER export signal, recruitment into COPII-coated vesicles, transport to the Golgi complex, proteolytic cleavage of SREBF in the Golgi, release of the transcription factor fragment of SREBF from the membrane, its import into the nucleus and up-regulation of LDLR, INSIG1 and the mevalonate pathway (By similarity).

SCAP Antibody (N-term) - References

- Nakajima T.,et al.J. Hum. Genet. 44:402-407(1999).
- Nagase T.,et al.DNA Res. 3:17-24(1996).
- Nakajima D.,et al.DNA Res. 9:99-106(2002).
- Ota T.,et al.Nat. Genet. 36:40-45(2004).
- Otsuki T.,et al.DNA Res. 12:117-126(2005).