

SCAP Antibody (Center) Blocking Peptide

Synthetic peptide Catalog # BP8568c

Specification

SCAP Antibody (Center) Blocking Peptide - Product Information

Primary Accession

<u>012770</u>

SCAP Antibody (Center) Blocking Peptide - Additional Information

Gene ID 22937

Other Names

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

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP8568c was selected from the Center region of human SCAP. 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.

SCAP Antibody (Center) Blocking Peptide - 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 (Center) Blocking Peptide - Protocols

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

• Blocking Peptides

SCAP Antibody (Center) Blocking Peptide - Images

SCAP Antibody (Center) Blocking Peptide - Background

SCAP is a protein with a sterol sensing domain(SSD) and seven WD domains. In the presence of cholesterol, this protein binds to sterol regulatory element binding proteins (SREBPs) and mediates their transport from the ER to the Golgi. The SREBPs are then proteolytically cleaved and regulate sterol biosynthesis.

SCAP Antibody (Center) Blocking Peptide - References

Lu,Y., et.al., J. Lipid Res. 49 (12), 2582-2589 (2008)