10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SCAP Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12299a

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q12770
Other Accession	NP_036367.2
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31071
Calculated MW	139729
Antigen Region	54-83

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 rabbits immunized with a KLH conjugated synthetic peptide between 54-83 amino acids from the N-terminal region of human SCAP.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
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.

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 (PubMed:26311497). 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 (PubMed:26311497). 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 (PubMed:26311497). Requires the presence of SPRING1 for proper localization to endoplasmic reticulum (PubMed:32111832). {ECO:0000250|UniProtKB:P97260, ECO:0000269|PubMed:26311497, ECO:0000269|PubMed:32111832}

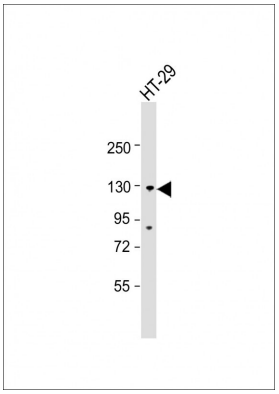
Background

This gene encodes 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.

References

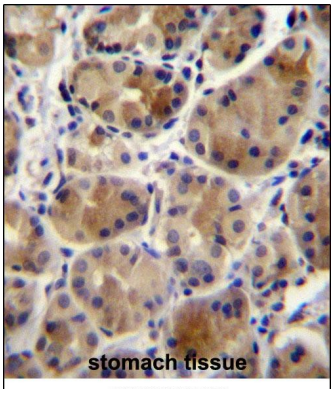
Vasseur, F., et al. J. Hum. Genet. 55(4):227-231(2010)
Liu, X., et al. Atherosclerosis 208(2):421-426(2010)
McGeachie, M., et al. Circulation 120(24):2448-2454(2009)
Chen, S.N., et al. BMC Med. Genet. 10, 111 (2009) :
Voora, D., et al. Circ Cardiovasc Genet 1(2):100-106(2008)

Images

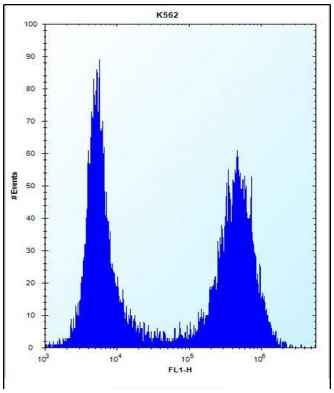


Anti-SCAP Antibody (N-term) at 1:1000 dilution + HT-29 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 140 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

SCAP Antibody (N-term) (Cat. #AP12299a)immunohistochemistry analysis in formalin fixed and paraffin embedded human stomach tissue



followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of SCAP Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



SCAP Antibody (N-term) (Cat. #AP12299a) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated donkey-anti-rabbit secondary antibodies were used for the analysis.