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Mouse Anti-SCAP antibody

SLM-51702M

Product Name	SCAP
Chinese Name	固醇调节元件 Binding protein 裂解激活蛋白单克隆抗体
Alias	KIAA0199; SCAP_HUMAN; SREBF chaperone; SREBF chaperone protein; SREBP cleavage activating protein; SREBP cleavage-activating protein; Sterol regulatory element binding protein cleavage-activating protein; Sterol regulatory element-binding protein cleavage-activating protein.
Research Area	Cardiovascular Signal transduction Lipoprotein The new supersedes the old
Immunogen Species	Mouse
Clonality	Monoclonal
Clone NO.	B7T5
React Species	Human,
Applications	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	140kDa
Cellular localization	cytoplasmic The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human SCAP: 41-140/1279
Lsotype	IgG1,κ
Purification	affinity purified by Protein G
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product Detail	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. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2016]

Function:
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.

Subunit:
Membrane region forms a homotetramer. Forms a stable complex with SREBF1/SREBP1 or SREBF2/SREBP2 through its C-terminal cytoplasmic domain. Forms a ternary complex with INSIG1 or INSIG2 through its transmembrane domains at high sterol concentrations. Interacts with the SEC23/SEC24 complex in a SAR1-GTP-dependent manner through an ER export signal in its third cytoplasmic loop. Binds cholesterol through its SSC domain (By similarity). Component of SCAP/SREBP complex composed of SREBF2, SCAP and RNF139; the complex hampers the interaction between SCAP and SEC24B, thereby reducing SREBF2 proteolytic processing. Interacts with RNF139; the interaction inhibits the interaction of SCAP with SEC24B and hampering the ER to Golgi transport of the SCAP/SREBP complex.

Subcellular Location:
Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus membrane; Multi-pass membrane protein. Cytoplasmic vesicle, COPII-coated vesicle membrane; Multi-pass membrane protein.

Similarity:
Belongs to the WD repeat SCAP family.
Contains 1 SSD (sterol-sensing) domain.
Contains 7 WD repeats.

SWISS:
Q12770

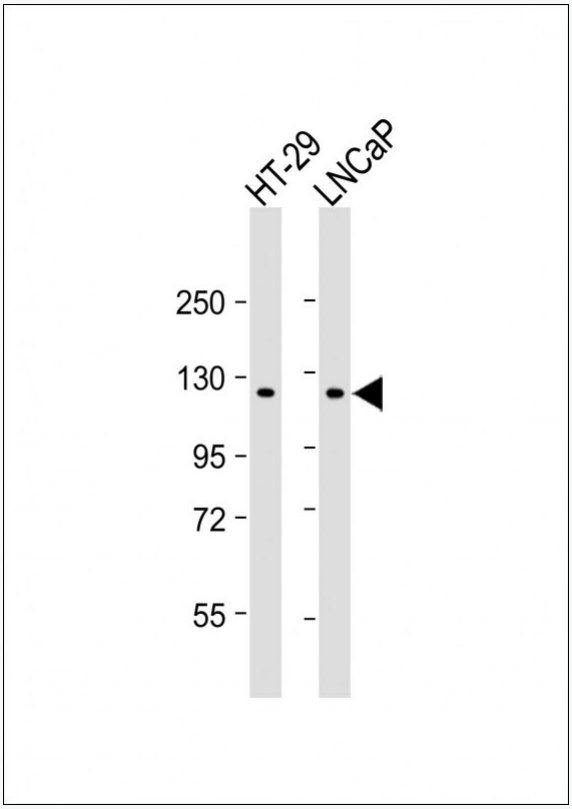
Gene ID:
22937

Database links:

Entrez Gene: 22937 Human

SwissProt: Q12770 Human

Product Picture



Sample:

Lane 1: HT-29 cell lysates

Lane 2: LNCaP cell lysates

Primary: Anti-SCAP (SLM-51702M) at 1/4000 dilution

Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/20000 dilution

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Predicted band size: 140 kD

Observed band size: 120 kD