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Rabbit Anti-SCAP/Cy5 Conjugated antibody

SL3862R-Cy5

Product Name	Anti-SCAP/Cy5
Chinese Name	Cy5 标记的固醇调节元件 Binding protein 裂解激活蛋白抗体
Alias	KIAA0199; SCAP; 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	Tumour Cardiovascular Cell biology immunology Signal transduction Lipoprotein The new supersedes the old
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	(predicted:Human,Mouse,Rat,Chicken,Dog,Pig,Horse,Rabbit)
Applications	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	140kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human SCAP
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:** SCAP is an escort protein required for cholestrol and lipid homeostasis. Cholesterol homeostasis in animal cells is achieved by regulated cleavage of SREBPs, membrane-bound transcription factors. SCAP forms a complex with SREBPs in order to release the active domains of SREBPs.

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 (By similarity).

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.

Database links:
UniProtKB/Swiss-Prot: Q12770.4

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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