

SCAP Antibody

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H R	Endogenous	130	Rabbit	#Q12770	22937

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

SCAP Antibody recognizes endogenous levels of total SCAP protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly193 of human SCAP protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

SREBP cleavage activating protein (SCAP) is a membrane-bound protein essential in regulating sterol regulatory element-binding protein (SREBP) processing (1). In cholesterol-starved cells, SREBPs move from the ER to the Golgi apparatus with the help of SCAP, where the precursor SREBPs are cleaved by site-1 (S1P) and site-2 (S2P) proteases (1,2). Released SREBP amino-terminal domains enter the nucleus and bind to sterol response elements located in the promoters of a number of genes responsible for the cholesterol synthesis (1,2). Research studies show that the SCAP/SREBP pathway is critical for diabetic fatty liver development and carbohydrate-induced hypertriglyceridemia in mice (3). In addition, the SCAP/SREBP pathway is required to protect cancer cells from lipotoxicity (4).

Background References

1. Brown, M.S. and Goldstein, J.L. (1997) *Cell* 89, 331-40.
2. Horton, J.D. et al. (2002) *J Clin Invest* 109, 1125-31.
3. Moon, Y.A. et al. (2012) *Cell Metab* 15, 240-6.
4. Williams, K.J. et al. (2013) *Cancer Res* 73, 2850-62.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **R:** Rat

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