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SREBF2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10673C

Product Information

Application	WB, IHC-P, IF, E
Primary Accession	Q12772
Other Accession	NP_004590.2
Reactivity	Human
Predicted	Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24513
Calculated MW	123688
Antigen Region	399-427

Additional Information

Gene ID	6721
Other Names	Sterol regulatory element-binding protein 2, SREBP-2, Class D basic helix-loop-helix protein 2, bHLHd2, Sterol regulatory element-binding transcription factor 2, Processed sterol regulatory element-binding protein 2, SREBF2, BHLHD2, SREBP2
Target/Specificity	This SREBF2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 399-427 amino acids from the Central region of human SREBF2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 IF~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. 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	SREBF2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SREBF2 {ECO:0000303|PubMed:32322062,

ECO:0000312|HGNC:HGNC:11290}

Function	[Sterol regulatory element-binding protein 2]: Precursor of the transcription factor form (Processed sterol regulatory element- binding protein 2), which is embedded in the endoplasmic reticulum membrane (PubMed:32322062). Low sterol concentrations promote processing of this form, releasing the transcription factor form that translocates into the nucleus and activates transcription of genes involved in cholesterol biosynthesis (PubMed:32322062).
Cellular Location	[Sterol regulatory element-binding protein 2]: Endoplasmic reticulum membrane; Multi- pass membrane protein. Golgi apparatus membrane; Multi-pass membrane protein. Cytoplasmic vesicle, COPII-coated vesicle membrane; Multi-pass membrane protein. Note=At high sterol concentrations, the SCAP- SREBP is retained in the endoplasmic reticulum (PubMed:32322062). Low sterol concentrations promote recruitment into COPII-coated vesicles and transport of the SCAP-SREBP to the Golgi, where it is processed (PubMed:32322062).
Tissue Location	Ubiquitously expressed in adult and fetal tissues.

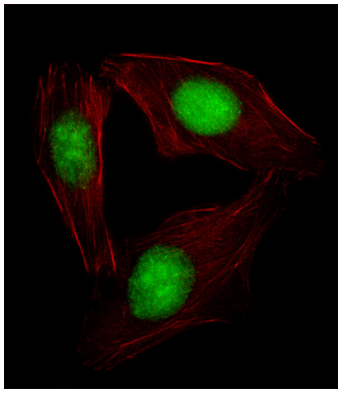
Background

SREBPs, including SREBP-1a, SREBP-1c, and SREBP-2, constitute a family of basic helix-loop-helix (bHLH) transcription factors that play a critical role in lipid homeostasis by regulating genes involved in cholesterol and fatty acid metabolism. Each SREBP consists of three domains, including an amino-terminal transcription factor domain of ~480 amino acids, a middle hydrophobic region of ~80 amino acids containing two hydrophobic transmembrane segments, and a carboxy-terminal regulatory domain of ~590 amino acids. SREBP-2 regulates cholesterol synthesis by activating the transcription of genes for HMG-CoA reductase and other enzymes of the cholesterol synthetic pathway. SREBP-2 is ubiquitously detected in various tissues. Under basal conditions SREBP is bound to ER membranes as a glycosylated precursor protein. Upon cholesterol depletion, the protein is cleaved to its active forms (about 50-68 kDa) and translocated into the nucleus to stimulate transcription of genes involved in the uptake and synthesis of cholesterol.

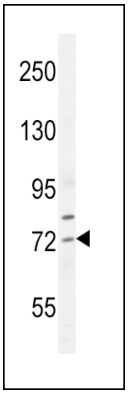
References

Gerin, I., et al. J. Biol. Chem. 285(44):33652-33661(2010) Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Marquart, T.J., et al. Proc. Natl. Acad. Sci. U.S.A. 107(27):12228-12232(2010) Najafi-Shoushtari, S.H., et al. Science 328(5985):1566-1569(2010) Pramfalk, C., et al. J. Lipid Res. 51(6):1354-1362(2010)

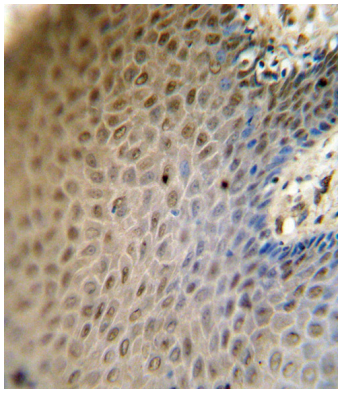
Images



Fluorescent image of U251 cell stained with SREBF2 Antibody (Center)(Cat#AP10673c).U251 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with SREBF2 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C).SREBF2 immunoreactivity is localized to Nucleus and Nucleolus significantly.



SREBF2 Antibody (Center) (Cat. #AP10673c) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the SREBF2 antibody detected the SREBF2 protein (arrow).



SREBF2 antibody (Center) (Cat. #AP10673c) immunohistochemistry analysis in formalin fixed and paraffin embedded human skin carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the SREBF2 antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.