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SREBF1 Antibody

Catalog # ASC11811

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P36956
Other Accession	NP_001005291, 52630419
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	121675
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SREBF1 antibody can be used for detection of SREBF1 by Western blot at 1 - 2 g/ml. Antibody can also be used for Immunohistochemistry at 5 g/mL. For Immunoflorescence start at 20 g/mL.

Additional Information

Gene ID	6720
Other Names	Sterol regulatory element-binding protein 1, SREBP-1, Class D basic helix-loop-helix protein 1, bHLHd1, Sterol regulatory element-binding transcription factor 1, Processed sterol regulatory element-binding protein 1, SREBF1, BHLHD1, SREBP1
Target/Specificity	SREBF1; SREBF1 antibody is human and mouse reactive. At least three isoforms of SREBF1 are known to exist. SREBF1 antibody is predicted not to cross-react with SREBF2.
Reconstitution & Storage	SREBF1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	SREBF1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SREBF1 {ECO:0000303|PubMed:7759101, ECO:0000312|HGNC:HGNC:11289}
Function	[Sterol regulatory element-binding protein 1]: Precursor of the transcription factor form (Processed sterol regulatory element- binding protein 1), 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 and lipid homeostasis (By similarity).

Cellular Location	[Sterol regulatory element-binding protein 1]: Endoplasmic reticulum membrane; Multi- pass membrane protein. Golgi apparatus membrane; Multi-pass membrane protein. Cytoplasmic vesicle, COPII-coated vesicle membrane {ECO:0000250|UniProtKB:Q9WTN3}; Multi-pass membrane protein. Note=At high sterol concentrations, the SCAP-SREBP is retained in the endoplasmic reticulum. Low sterol concentrations promote recruitment into COPII-coated vesicles and transport of the SCAP-SREBP to the Golgi, where it is processed {ECO:0000250|UniProtKB:Q9WTN3} [Isoform SREBP-1aDelta]: Nucleus
Tissue Location	Expressed in a wide variety of tissues, most abundant in liver and adrenal gland (PubMed:8402897). In fetal tissues lung and liver shows highest expression (PubMed:8402897) [Isoform SREBP-1C]: Predominantly expressed in liver and adipose tissues (PubMed:8402897). Also expressed in kidney, brain, white fat, and muscle (PubMed:8402897)

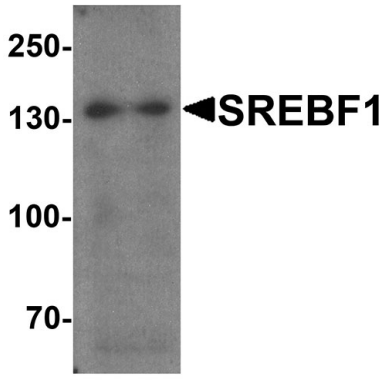
Background

The sterol regulatory element binding transcription factor 1 (SREBF1) is a transcription factor that binds to the sterol regulatory element-1 (SRE1), which is a decamer flanking the low density lipoprotein receptor gene and some genes involved in sterol biosynthesis (1). The related protein SREBF2 also binds SRE1 and activates transcription in an additive fashion to SREBF1 (2). SREBF1 is synthesized as a precursor that is attached to the nuclear membrane and endoplasmic reticulum. Following cleavage, the mature protein translocates to the nucleus and activates transcription by binding to the SRE1 (3). The SREBF1 proteins are important in the regulation of genes involved in lipid metabolism, while SREBF2 has been more closely associated with cholesterol synthesis and accumulation (4).

References

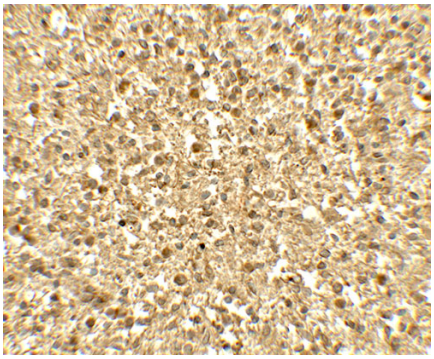
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Wang X, Sato R, Brown MS, et al. SREBP-1, a membrane-bound transcription factor released by sterol-regulated proteolysis. Cell 1994; 77:53-62.
Raghow R, Yellaturu C, Deng X, et al. SREBPs: the crossroads of physiological and pathological homeostasis. Endocrinol. Metab. 2008; 19:65-73.

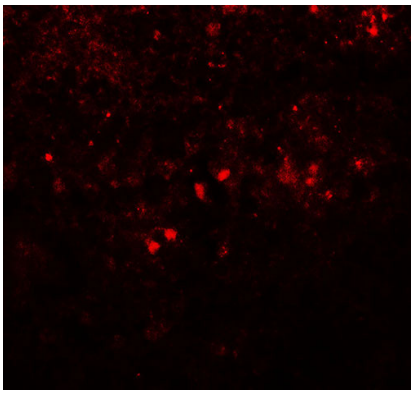
Images



Western blot analysis of SREBF1 in Daudi cell lysate with SREBF1 antibody at 1 µg/ml.

Immunohistochemistry of SREBF1 in human spleen tissue with SREBF1 antibody at 5 µg/mL.





Immunofluorescence of SREBF1 in human spleen tissue with SREBF1 antibody at 20 µg/mL.

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