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SREBF1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8732c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P36956
Other Accession	P56720, Q9WTN3, Q60416
Reactivity	Human
Predicted	Hamster, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB21265
Calculated MW	121675
Antigen Region	349-378

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	This SREBF1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 349-378 amino acids of human SREBF1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~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	SREBF1 Antibody (Center) 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)

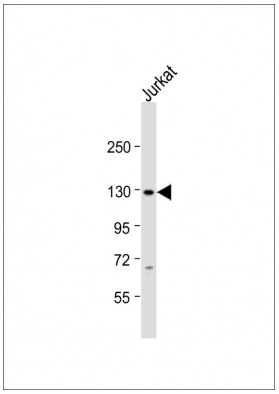
Background

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. The protein 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. Sterols inhibit the cleavage of the precursor, and the mature nuclear form is rapidly catabolized, thereby reducing transcription. The protein is a member of the basic helix-loop-helix-leucine zipper (bHLH-Zip) transcription factor family.

References

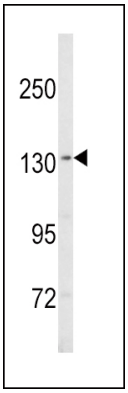
Wang,X., et.al., Cell 77 (1), 53-62 (1994)

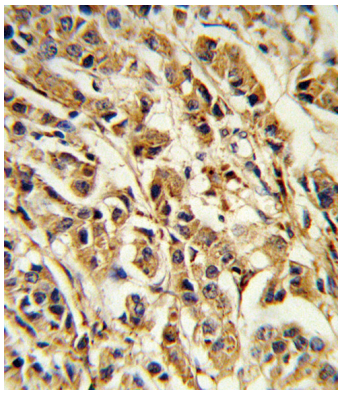
Images



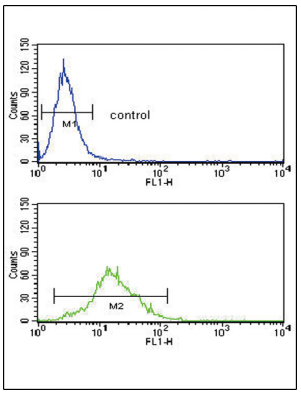
Anti-SREBF1 Antibody (Center) at 1:1000 dilution + Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 122 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Western blot analysis of SREBF1 Antibody (Center) (Cat. #AP8732c) in MDA-MB435 cell line lysates (35ug/lane). SREBF1 (arrow) was detected using the purified Pab.





Formalin-fixed and paraffin-embedded human breast carcinoma reacted with SREBF1 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



SREBF1 Antibody (Center) (Cat. #AP8732c) flow cytometry analysis of Ramos cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.