

Product name:	SREBP-1 Rabbit Polyclonal Antibody
Cat number:	ABN18264
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	Synthesized peptide derived from human SREBP-1. at AA range: 250-330
Reactivity:	Human, Mouse, Rat, Golden hamster
Applications:	WB 1:500-1:2000, IHC 1:100-1:300, ICC/IF 1:50-1:200, ELISA 1:10000-1:20000
Molecular Weight:	110kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

This gene encodes 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. This gene is located within the Smith-Magenis syndrome region on chromosome 17. [provided by RefSeq, Mar 2016], alternative products: Additional isoforms seem to exist, function: Transcriptional activator required for lipid homeostasis. Regulates transcription of the LDL receptor gene as well as the fatty acid and to a lesser degree the cholesterol synthesis pathway (By similarity). Binds to the sterol regulatory element 1 (SRE-1) (5'-ATCACCCAC-3'). Has dual sequence specificity binding to both an E-box motif (5'-ATCACGTGA-3') and to SRE-1 (5'-ATCACCCAC-3')., online information: Sterol regulatory element-binding protein entry, PTM: At low cholesterol the SCAP/SREBP complex is recruited into COPII vesicles for export from the ER. In the Golgi complex SREBPs are cleaved sequentially by site-1 and site-2 protease. The first cleavage by site-1 protease occurs within the luminal loop, the second cleavage by site-2 protease occurs within the first transmembrane domain and releases the transcription factor from the Golgi membrane. Apoptosis triggers cleavage by the cysteine proteases caspase-3 and caspase-7., sequence caution: Intron retention., similarity: Belongs to the SREBP family., similarity: Contains 1 basic helix-loop-helix (bHLH) domain., subcellular location: Moves from the endoplasmic reticulum to the Golgi in the absence of sterols., subunit: Forms a tight complex with SCAP in the ER membrane. Efficient DNA binding of the soluble transcription factor fragment requires dimerization with another bHLH protein. Interacts with LMNA., tissue specificity: Expressed in a wide variety of tissues, most abundant in liver and adrenal gland. In fetal tissues lung and liver shows highest expression. Isoform SREBP-1C predominates in liver, adrenal gland and ovary, whereas isoform SREBP-1A predominates in hepatoma cell lines. Isoform SREBP-1A and isoform SREBP-1C are found in kidney, brain, white fat, and muscle.,