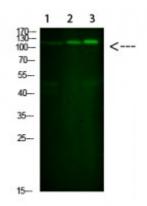


Anti-SREBP-1 antibody





Model STJ98832

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, WB

Immunogen Synthesized peptide derived from human SREBP-1.

Immunogen Region 250-330

Gene ID <u>6720;</u>

Gene Symbol SREBF1

Dilution range WB 1:500-2000ELISA 1:5000-20002

Specificity This antibody detects endogenous levels of SREBP-1

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

Purification The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Sterol regulatory element-binding protein 1SREBP-1Class D basic helix-loop-

helix protein 1bHLHd1Sterol regulatory element-binding transcription factor

1

Molecular Weight 121.6 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links Gene Id: 11289OMIM: 184756Reactome: R-HSA-1368082 Reactome: R-

HSA-1655829Reactome: R-HSA-1989781Reactome: R-

HSA-2426168Reactome: R-HSA-381340Reactome: R-HSA-9615017

Alternative Names SREBF1Sterol regulatory element-binding protein 1 antibodySREBP-1

antibodyClass D basic helix-loop-helix protein 1 antibodybHLHd1 antibodySterol regulatory element-binding transcription factor 1SREBF1 antibodyBHLHD1 antibodySREBP1 antibodyBHLHD1 antibodySREBP1

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'-ATCACCCCAC-3'), Has dual sequence specificity binding to both an E-box motif (5'-ATCACGTGA-3') and to

SRE-1 (5'-ATCACCCCAC-3')

Sequence and Domain Family The nuclear export signal acts as a transcriptional repression domain. The

TADI and TADII motifs (residues 17 to 25 and 48 to 56) correspond both to 9aaTAD motifs which are transactivation domains present in a large number

of yeast and animal transcription factors.

Cellular Localization Endoplasmic reticulum membrane

Post-translational At low cholesterol the SCAP/SREBP complex is recruited into COPII vesicles

Modifications 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,

Phosphorylated by AMPK, leading to suppress protein processing and nuclear translocation, and repress target gene expression, Phosphorylation at Ser-402

by SIK1 represses activity possibly by inhibiting DNA-binding