

ARG62627 anti-SREBP1 antibody [2A4]

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [2A4] recognizes SREBP1
Tested Reactivity	Hu, Ms, Rat, Bov, Gpig, Rb
Tested Application	FACS, ICC/IF, WB
Specificity	This SREBP1 [2A4] antibody can be used to detect the precursor form of SREBP1 at 125 kDa and the cleaved form of SREBP1 at around 60-70 kDa.
Host	Mouse
Clonality	Monoclonal
Clone	2A4
Isotype	IgG1, kappa
Target Name	SREBP1
Species	Human
Immunogen	6 His-tag fusion protein of human SREBP1 corresponding to amino acids 301-407.
Conjugation	Un-conjugated
Alternate Names	Class D basic helix-loop-helix protein 1; SREBP-1c; bHLHd1; Sterol regulatory element-binding protein 1; Sterol regulatory element-binding transcription factor 1; SREBP1; SREBP-1

Application Instructions

Application table	Application	Dilution
	FACS	1µg for 10 ⁶ cells
	ICC/IF	5 µg/ml
	WB	1 - 2 µg/ml
Application Note	WB: This SREBP1 antibody (clone 2A4) antibody can detect a signal at 125 kDa (precursor form) and additional bands may also be seen at 60-70 kDa (cleaved from). * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification	Protein G purified
Buffer	10mM PBS (pH 7.4), 0.2% BSA and 0.09% Sodium azide
Preservative	0.09% Sodium azide
Stabilizer	0.2% BSA

Concentration	0.2 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	SREBF1
Gene Full Name	sterol regulatory element binding transcription factor 1
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. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]
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'). [UniProt]
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Gene Regulation antibody; Metabolism antibody
Calculated Mw PTM	122 kDa 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. 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 (By similarity).

Images



ARG62627 anti-SREBP1 antibody [2A4] WB image

Western blot: 30 µg of Mouse liver lysate stained with ARG62627 anti-SREBP1 antibody [2A4] at 1:1000 dilution.