Datasheet for ABIN967564

anti-SREBF2 antibody (AA 833-1141)

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Overview

Quantity:	0.1 mg
Target:	SREBF2
Binding Specificity:	AA 833-1141
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This SREBF2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunoprecipitation (IP)

Product Details

Brand:	BD Pharmingen™
Immunogen:	Human SREBP-2 aa. 833-1141
Clone:	IgG-1C6
Isotype:	IgG1 kappa
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	SREBF2
Alternative Name:	SREBP-2 (SREBF2 Products)
Background:	SREBP-1 and -2 (sterol-regulatory element binding proteins-1 and -2) are transcription factors which participate in the control of cholesterol homeostasis. SREBP proteins, which are attached to the endoplasmic reticulum and nuclear envelope, are proteolytically cleaved and thus activated in response to conditions of low cellular sterol. Upon activation of SREBP-1 or -2, a ~480-500 amino acid, N-terminal cleavage fragment of these proteins enters the nucleus and activates transcription of enzymes and other proteins required for cholesterol synthesis. Proteases which cleave SREBPs have been identified and include SCA (SREBP-cleavage activity), as well as caspase-3, a key regulator of apoptotic pathways. SREBP proteins containing point mutations at caspase-3 cleavage sites (Asp460 in SREBP-1 and Asp468 in SREBP-2) do not become cleaved following induction of apoptosis, suggesting that SREBPs may play some role in apoptotic processes. However, sterol-regulated vs. apoptosis-associated cleavage of SREBP proteins appears to be independently regulated. On SDS-PAGE, sterol-regulated cleavage fragments of SREBP proteins migrate more slowly (i.e., higher molecular weight) than do staurosporin-induced fragments. In addition, staurosporin-induced SREBP cleavage products may appear as a doublet, with the upper band representing a phosphorylated form of SREBP. On SDS-PAGE, full length, precursor forms of SREBP-1 and -2 migrate at ~125 kD, while proteolytic cleavage fragments may be observed as a cluster of bands between 60 - 70 kDa. The IgG-1C6 antibody recognizes human SREBP-2. The antibody recognizes the C-terminal of human SREBP-2. A fusion protein containing C-terminal amino acids 833-1141 of human SREBP-2, was used as immunogen. The antibody recognizes both the 125 kDa precursor and the 60-70 kDa COOH-terminal cleaved forms of SREBP-2. Synonyms: Sterol Regulatory Element-Binding Factor 1, SREBF1
Pathways:	Regulation of Lipid Metabolism by PPARalpha

Application Details

Application Notes:	The IgG-1C6 antibody may be used for western blot analysis (2 µg/ml) and immunoprecipitation (2 µg antibody/300-500 µg of total protein lysate). U-937 human histiocytic lymphoma cells (ATCC CRL-1593) or HeLa human cervical carcinoma cells (ATCC CCL-2) are recommended as additional positive controls.
Comment:	Related Products: ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C.

Publications

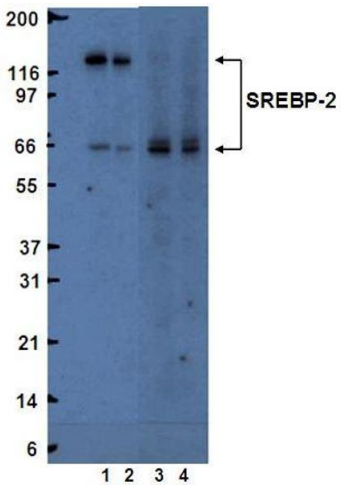
Product cited in:

Sakai, Nohturfft, Cheng, Ho, Brown, Goldstein: "Identification of complexes between the COOH-terminal domains of sterol regulatory element-binding proteins (SREBPs) and SREBP cleavage-activating protein." in: **The Journal of biological chemistry**, Vol. 272, Issue 32, pp. 20213-21, (1997) (PubMed).

Hua, Sakai, Ho, Goldstein, Brown: "Hairpin orientation of sterol regulatory element-binding protein-2 in cell membranes as determined by protease protection." in: **The Journal of biological chemistry**, Vol. 270, Issue 49, pp. 29422-7, (1996) (PubMed).

Wang, Zelenski, Yang, Sakai, Brown, Goldstein: "Cleavage of sterol regulatory element binding proteins (SREBPs) by CPP32 during apoptosis." in: **The EMBO journal**, Vol. 15, Issue 5, pp. 1012-20, (1996) (PubMed).

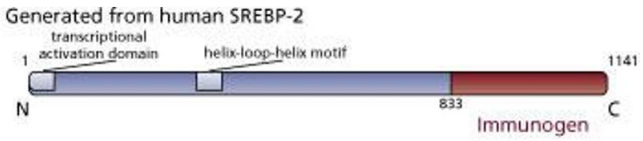
Wang, Pai, Wiedenfeld, Medina, Slaughter, Goldstein, Brown: "Purification of an interleukin-1 beta converting enzyme-related cysteine protease that cleaves sterol regulatory element-binding proteins between the leucine zipper and transmembrane domains." in: **The Journal of biological chemistry**, Vol. 270, Issue 30, pp. 18044-50, (1995) (PubMed).

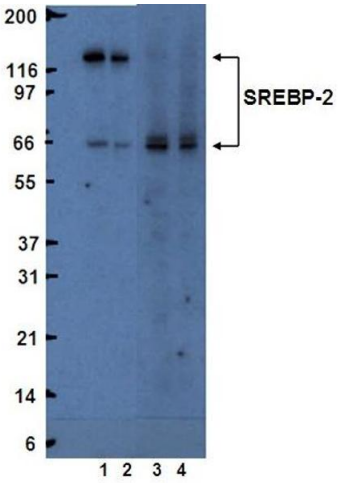


Western Blotting

Image 1. Western blot analysis of SREBP-2. Jurkat (ATCC TIB-152) cells were left untreated (lanes 1 & 2) or treated with 1 µM Staurosporin for 4 hours (lanes 3 & 4) to induce apoptosis. Cell lysates were probed with Purified Mouse Anti-SREBP-2 (ABIN967564). As apoptosis is induced, the SREBP-2 125 kDa precursor is cleaved to its ~70 kDa size.

Image 2.





Western Blotting

Image 3.