Product Datasheet SREBP2 Antibody (1D2) - BSA Free

NBP1-54446

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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SREBP2 Antibody (1D2) - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	1D2
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	PBS
Product Description	
Host	Mouse
Gene ID	6721
Gene Symbol	SREBF2
Species	Human, Chicken
Reactivity Notes	Chicken was reported in PMIDs 15333705 and 11907029.
Specificity/Sensitivity	Recognizes the precursor and mature forms of human SREBP2.
Immunogen	Human SREBP2 protein (amino acids 48-403). [UniProt# Q12772]
Product Application Details	
Applications	Western Blot, ELISA, Gel Super Shift Assays, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation
Recommended Dilutions	Western Blot 2 - 5 ug/mL, ELISA, Immunocytochemistry/ Immunofluorescence 10 ug/mL, Immunoprecipitation 10 ug/mg protein, Gel Super Shift Assays
Application Notes	In WB, this antibody is expected to detect the precursor as well as the mature forms of SREBP2. Use of this antibody in EMSA/GS (Gel Supershift Assay) and IP applications has been reported in PMIDs 15333705 and 15213220, respectively.



Images

Western Blot: SREBP2 Antibody (1D2) [NBP1-54446] - Lane1: HEp-2 cells. Lane 2: MCF-7 cells. Lane 3: LNCaP cells. Lane 4: HT1080 cells. Lane 5: ZR75-1 cells.



Immunocytochemistry/Immunofluorescence: SREBP2 Antibody (1D2) [NBP1-54446] - SREBP2 (1D2) antibody was tested in HeLa cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red).





Publications

Chen F, Matsuda A, Budinger GRS et al. Hypercapnia increases ACE2 expression and pseudo-SARS-CoV-2 entry in bronchial epithelial cells by augmenting cellular cholesterol Frontiers in immunology 2023-10-12 [PMID: 37901225] (Immunohistochemistry, Mouse)

Soundararajan A, Wang T, Sundararajan R et al. Multiomics analysis reveals the mechanical stress-dependent changes in trabecular meshwork cytoskeletal-extracellular matrix interactions Frontiers in Cell and Developmental Biology 2022-09-13 [PMID: 36176278]

Fowler JWM, Boutagy NE, Zhang R et al. SREBP2 regulates the endothelial response to cytokines via direct transcriptional activation of KLF6 Journal of lipid research 2023-07-10 [PMID: 37437844] (ChIP, Human)

Tanton H, Sewastianik T, Seo HS et al. A novel beta-catenin/BCL9 complex inhibitor blocks oncogenic Wnt signaling and disrupts cholesterol homeostasis in colorectal cancer Science advances 2022-04-29 [PMID: 35486727] (WB)

Ghaffari, S, Jang, E Et al. Endothelial HMGB1 Is a Critical Regulator of LDL Transcytosis via an SREBP2-SR-BI Axis. Arterioscler Thromb Vasc Biol 2021-01-01 [PMID: 33054399] (IHC-P, In Vivo, Human, Mouse)

Yang R, Zhao Y, Gu Y et al. Isocitrate dehydrogenase 1 mutation enhances 24(S)-hydroxycholesterol production and alters cholesterol homeostasis in glioma Oncogene 2020-08-27 [PMID: 32855525] (WB)

Du X, Kazim AS, Dawes IW et al. The AAA ATPase VPS4/SKD1 regulates endosomal cholesterol trafficking independently of ESCRT-III.. Traffic. 2013-01-01 [PMID: 23009658] (WB, Human)

Sever N, Yang T, Brown MS et al. Accelerated degradation of HMG CoA reductase mediated by binding of insig-1 to its sterol-sensing domain.. Mol Cell. 2003-01-01 [PMID: 12535518] (WB, Human)

Janowski BA, Shan B, Russell DW. The hypocholesterolemic agent LY295427 reverses suppression of sterol regulatory element-binding protein processing mediated by oxysterols.. J Biol Chem. 2001-11-30 [PMID: 11577112] (WB, Human)

Song BL, DeBose-Boyd RA. Insig-dependent ubiquitination and degradation of 3-hydroxy-3-methylglutaryl coenzyme a reductase stimulated by delta- and gamma-tocotrienols. J Biol Chem. 2006-09-01 [PMID: 16831864] (WB, Human)

Sun LP, Li L, Goldstein JL, Brown MS. Insig required for sterol-mediated inhibition of Scap/SREBP binding to COPII proteins in vitro.. J Biol Chem. 2005-07-15 [PMID: 15899885] (WB, Human)

Adams CM, Reitz J, De Brabander JK et al. Cholesterol and 25-hydroxycholesterol inhibit activation of SREBPs by different mechanisms, both involving SCAP and Insigs. J Biol Chem. 2004-12-10 [PMID: 15452130] (WB, Human)

More publications at <u>http://www.novusbio.com/NBP1-54446</u>



Procedures

Western Blot protocol for SREBP2 Antibody (NBP1-54446)

Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 25 ug of total protein per lane.

2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.

3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.

4. Rinse the blot.

5. Block the membrane using standard blocking buffer for at least 1 hour.

6. Wash the membrane in wash buffer three times for 10 minutes each.

7. Dilute anti-SREBP2 (1D2) primary antibody in blocking buffer and incubate 1 hour at room temperature.

8. Wash the membrane in wash buffer three times for 10 minutes each.

9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.

10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).

11. Apply the detection reagent of choice in accordance with the manufacturers instructions.

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

Immunocytochemistry/Immunofluorescence protocol for SREBP2 Antibody (NBP1-54446)

Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.

2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.

3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.

4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.

5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.

6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.

7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.

8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,0000 and incubate for 10 minutes. Wash a third time for 10 minutes.

9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.

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NBP1-54446AF405	SREBP2 Antibody (1D2) [Alexa Fluor® 405]
NBP1-54446AF405	SREBP2 Antibody (1D2) [Alexa Fluor® 405]

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