Anti-SREBP1 Antibody [PSH04-61] - BSA and Azide free

HA750968

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IHC-P, IF-Cell
Molecular Wt:	Predicted band size: 122 kDa
Clone number:	PSH04-61

Description: Sterol regulatory element-binding transcription factor 1 (SREBF1) also known as sterol regulatory element-binding protein 1 (SREBP-1) is a protein that in humans is encoded by the SREBF1 gene. 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. The isoforms are SREBP-1a and SREBP-1c (the latter also called ADD-1). SREBP-1a is expressed in the intestine and spleen, whereas SREBP-1c is mainly expressed in liver, muscle, and fat (among other tissues). SREBP-1 plays a key role in the induction of lipogenesis by the liver. mTORC1 is activated by insulin (a hormone of nutrient abundance) leading to increased production of SREBP-1c, which facilitates storage of fatty acids (excess nutrients) as triglycerides.

Immunogen: Synthetic peptide within human SREBP1 aa 301-350 / 1,147.

Positive control: HeLa cell lysate, HEK-293 cell lysate, MCF7 cell lysate, A549 cell lysate, SK-Br-3 cell lysate, human adrenal gland tissue, HeLa.

Subcellular location: Endoplasmic reticulum membrane, Golgi apparatus membrane, Cytoplasmic vesicle, COPII-coated vesicle membrane; Nucleus.

Database links: SwissProt: P36956 Human

Recommended Dilutions:

WB	1:2,000
IHC-P	1:50
IF-Cell	1:100

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

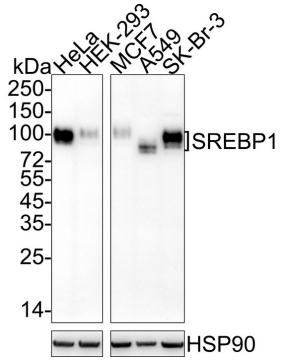

Fig1: Western blot analysis of SREBP1 on different lysates with Rabbit anti-SREBP1 antibody (HA750968) at 1/2,000 dilution.

Lane 1: HeLa cell lysate
Lane 2: HEK-293 cell lysate
Lane 3: MCF7 cell lysate
Lane 4: A549 cell lysate
Lane 5: SK-Br-3 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 122 kDa
Observed band size: 80-100 kDa

Exposure time: 3 minutes; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA750968) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

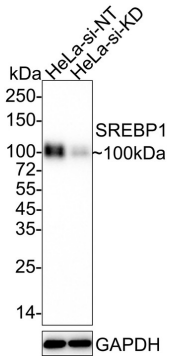

Fig2: Western blot analysis of SREBP1 on different lysates with Rabbit anti-SREBP1 antibody (HA750968) at 1/2,000 dilution.

Lane 1: HeLa-si-NT cell lysate
Lane 2: HeLa-si-SREBP1 cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 122 kDa
Observed band size: 100 kDa

Exposure time: 1 minute 50 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA750968) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

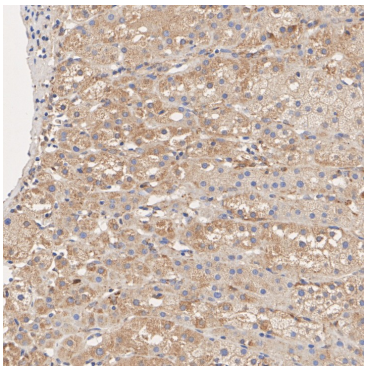

Fig3: Immunohistochemical analysis of paraffin-embedded human adrenal gland tissue with Rabbit anti-SREBP1 antibody (HA750968) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750968) at 1/50 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

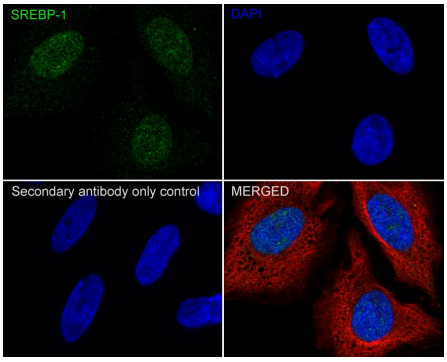

Fig4: Immunocytochemistry analysis of HeLa cells labeling SREBP1 with Rabbit anti-SREBP1 antibody (HA750968) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-SREBP1 antibody (HA750968) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

Background References

1. Chen J et al. ACSL4 reprograms fatty acid metabolism in hepatocellular carcinoma via c-Myc/SREBP1 pathway. Cancer Lett. 2021 Apr
2. Jia Y et al. Long non-coding RNA NEAT1 mediated RPRD1B stability facilitates fatty acid metabolism and lymph node metastasis via c-Jun/c-Fos/SREBP1 axis in gastric cancer. J Exp Clin Cancer Res. 2022 Sep