SANTA CRUZ BIOTECHNOLOGY, INC.

OSBP2 (M-190): sc-135008



BACKGROUND

The Oxysterol-binding protein (OSBP) family of proteins consist of OSBP (OSBP1) and OSBP2 (ORP-4), which share a high overall similarity. OSBPs are involved in lipid metabolism and signal transduction, as well as vesicle transport, and can translocate to the periphery of Golgi membranes when they are bound to oxysterols. The OSBP protein transports sterols from lysosomes to the nucleus, where sterols downregulate the genes for HMG synthetase, HMG-CoA reductase and the low density lipoprotein receptor (LDLR). OSBP localizes to the cytosol and is widely expressed, while OSBP2 is mainly detected in testis, retina and fetal liver. The extracellular signal-regulated kinase (ERK) signaling pathway is controlled by OSBP via its cholesterol-binding properties. OSBP binds with a high affinity to 25-hydroxy-cholesterol (25-HC), a suppressor of cholesterol synthesis gene transcription in cultured cells.

REFERENCES

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- 3. Wang, C., JeBailey, L. and Ridgway, N.D. 2002. Oxysterol-binding-protein (OSBP)-related protein 4 binds 25-hydroxycholesterol and interacts with vimentin intermediate filaments Biochem J 361: 461-472
- 4. Henriques Silva, N., Vasconcellos Fournier, M., Pimenta, G., Pulcheri, W.A., Spector, N. and da Costa Carvalho Mda, G. 2003. HLM/OSBP2 is expressed in chronic myeloid leukemia. Int. J. Mol. Med. 12: 663-666.
- 5. Lehto, M. and Olkkonen, V.M. 2003. The OSBP-related proteins: a novel protein family involved in vesicle transport, cellular lipid metabolism, and cell signalling. Biochim. Biophys. Acta 1631: 1-11.
- 6. Wyles, J.P., Perry, R.J. and Ridgway, N.D. 2007. Characterization of the sterol-binding domain of oxysterol-binding protein (OSBP)-related protein 4 reveals a novel role in vimentin organization. Exp. Cell Res. 313: 1426-1437.

CHROMOSOMAL LOCATION

Genetic locus: Osbp2 (mouse) mapping to 11 A1.

SOURCE

OSBP2 (M-190) is a rabbit polyclonal antibody raised against amino acids 1-190 mapping at the N-terminus of OSBP2 of mouse origin.

PRODUCT

Each vial contains 200 µg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

OSBP2 (M-190) is recommended for detection of OSBP2 of mouse and, to a lesser extent, rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for OSBP2 siRNA (m): sc-62720, OSBP2 shRNA Plasmid (m): sc-62720-SH and OSBP2 shRNA (m) Lentiviral Particles: sc-62720-V.

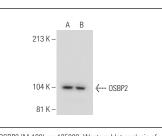
Molecular Weight of OSBP2: 101 kDa.

Positive Controls: BC₃H1 cell lysate: sc-2299, F9 cell lysate: sc-2245 or EOC 20 whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat antirabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



OSBP2 (M-190): sc-135008. Western blot analysis of OSBP2 expression in BC3H1 (A) and EOC 20 (B) whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS Satisfation Guaranteed

Try OSBP2 (A-3): sc-376601 or OSBP2 (G-8): sc-365951, our highly recommended monoclonal alternatives to OSBP2 (M-190).