

ORP-1 (E-14): sc-66491

BACKGROUND

Members of the oxysterol-binding protein (OSBP) family function as intracellular lipid receptors. 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. ORPs (OSBP-related proteins) belong to a subfamily of OSBPs and consists of ORP-1 and ORP-2. The ORPs have a highly conserved OSBP-type sterol-binding region and a pleckstrin homology domain. They strongly bind to phosphatidic acid and weakly bind to phosphatidylinositol 3-phosphate. Three isoforms of ORP-1 are produced due to alternative splicing. Isoform ORP-1A is expressed only in retina, brain, pineal gland, fetal brain, and cultured retinal pigment epithelial cells, whereas ORP-1B is expressed ubiquitously.

REFERENCES

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- Lehto, M., et al. 2001. The OSBP-related protein family in humans. *J. Lipid Res.* 42: 1203-1213.
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CHROMOSOMAL LOCATION

Genetic locus: OSBPL1A (human) mapping to 18q11.2; Osbp1a (mouse) mapping to 18 A1.

SOURCE

ORP-1 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ORP-1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-66491 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ORP-1 (E-14) is recommended for detection of Oxysterol-binding protein-related protein 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

ORP-1 (E-14) is also recommended for detection of Oxysterol-binding protein-related protein 1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ORP-1 siRNA (h): sc-62715, ORP-1 siRNA (m): sc-62716, ORP-1 shRNA Plasmid (h): sc-62715-SH, ORP-1 shRNA Plasmid (m): sc-62716-SH, ORP-1 shRNA (h) Lentiviral Particles: sc-62715-V and ORP-1 shRNA (m) Lentiviral Particles: sc-62716-V.

Molecular Weight (predicted) of OSBPL1B: 108 kDa.

Molecular Weight (predicted) of OSBPL1A: 50 kDa.

Molecular Weight (predicted) of OSBPL1C: 106 kDa.

Molecular Weight (observed) of ORP-1: 89 kDa.

Positive Controls: mouse heart extract: sc-2254.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.