

ORP-7 (D-14): sc-165160

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 through ORP-11. 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. ORP-7 (oxysterol-binding protein-related protein 7), also known as OSBPL7 (oxysterol binding protein-like 7), is an 842 amino acid protein that contains a C-terminal sterol-binding (SB) domain and a N-terminal pleckstrin homology (PH) domain. A member of the OSBP family, ORP-7 is encoded by a gene located on human chromosome 17.

REFERENCES

- Jaworski, C.J., et al. 2001. A family of 12 human genes containing oxysterol-binding domains. *Genomics* 78: 185-196.
- Lehto, M., et al. 2001. The OSBP-related protein family in humans. *J. Lipid Res.* 42: 1203-1213.
- Annis, A.M., et al. 2002. An oxysterol-binding protein family identified in the mouse. *DNA Cell Biol.* 21: 571-580.
- Lehto, M. and Oikkonen, 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.
- Oikkonen, V.M. and Levine, T.P. 2004. Oxysterol binding proteins: in more than one place at one time? *Biochem. Cell Biol.* 82: 87-98.
- Lehto, M., et al. 2004. Subfamily III of mammalian oxysterol-binding protein (OSBP) homologues: the expression and intracellular localization of ORP3, ORP6, and ORP7. *Cell Tissue Res.* 315: 39-57.
- Suchanek, M., et al. 2007. The mammalian oxysterol-binding protein-related proteins (ORPs) bind 25-hydroxycholesterol in an evolutionarily conserved pocket. *Biochem. J.* 405: 473-480.

CHROMOSOMAL LOCATION

Genetic locus: OSBPL7 (human) mapping to 17q21.32; Osbpl7 (mouse) mapping to 11 D.

SOURCE

ORP-7 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ORP-7 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-165160 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ORP-7 (D-14) is recommended for detection of ORP-7 of human origin and Osbpl7 of mouse origin 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); non cross-reactive with other ORP family members .

Suitable for use as control antibody for ORP-7 siRNA (h): sc-94014, Osbpl7 siRNA (m): sc-151328, ORP-7 shRNA Plasmid (h): sc-94014-SH, Osbpl7 shRNA Plasmid (m): sc-151328-SH, ORP-7 shRNA (h) Lentiviral Particles: sc-94014-V and Osbpl7 shRNA (m) Lentiviral Particles: sc-151328-V.

Molecular Weight of ORP-7: 95 kDa.

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.


 MONOS
 Satisfaction
 Guaranteed

Try **ORP-7 (E-2): sc-515540**, our highly recommended monoclonal alternative to ORP-7 (D-14).