# ORP-10 (K-16): sc-99575



The Power to Overtin

#### **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. The gene encoding the 764 amino acid ORP-10 (Oxysterol-binding protein-related protein 10) protein maps to human chromosome 3, which spans 200 million base pairs and encodes between 1,100 and 1,500 genes.

## **REFERENCES**

- 1. 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.
- 3. Anniss, A.M., et al. 2002. An oxysterol-binding protein family identified in the mouse. DNA Cell Biol. 21: 571-580.
- Lehto, M., et al. 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.
- 5. Olkkonen, V.M., et al. 2004. Oxysterol binding proteins: in more than one place at one time? Biochem. Cell Biol. 82: 87-98.
- Skirpan, A.L., et al. 2006. Identification and characterization of PiORP1, a
  Petunia oxysterol-binding-protein related protein involved in receptor-kinase
  mediated signaling in pollen, and analysis of the ORP gene family in
  Arabidopsis. Plant Mol. Biol. 61: 553-565.
- 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.
- 8. Lessmann, E., et al. 2007. Oxysterol-binding protein-related protein (ORP) 9 is a PDK-2 substrate and regulates Akt phosphorylation. Cell. Signal. 19: 384-392.
- Yan, D., et al. 2008. OSBP-related protein 8 (ORP8) suppresses ABCA1 expression and cholesterol efflux from macrophages. J. Biol. Chem. 283: 332-340.

## CHROMOSOMAL LOCATION

Genetic locus: OSBPL10 (human) mapping to 3p23; Osbpl10 (mouse) mapping to 9 F3.

#### **SOURCE**

ORP-10 (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ORP-10 of human origin.

#### **PRODUCT**

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99575 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

ORP-10 (K-16) is recommended for detection of ORP-10 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.

ORP-10 (K-16) is also recommended for detection of ORP-10 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ORP-10 siRNA (h): sc-78052, ORP-10 siRNA (m): sc-151318, ORP-10 shRNA Plasmid (h): sc-78052-SH, ORP-10 shRNA Plasmid (m): sc-151318-SH, ORP-10 shRNA (h) Lentiviral Particles: sc-78052-V and ORP-10 shRNA (m) Lentiviral Particles: sc-151318-V.

Molecular Weight of ORP-10: 84 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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com