SANTA CRUZ BIOTECHNOLOGY, INC.

ORP-7 (E-2): sc-515540

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 17q21.32.

REFERENCES

1. Jaworski, C.J., et al. 2001. A family of 12 human genes containing oxysterol-binding domains. Genomics 78: 185-196.
2. 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.
4. 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.
5. Olkkonen, V.M. and Levine, T.P. 2004. Oxysterol binding proteins: in more than one place at one time? Biochem. Cell Biol. 82: 87-98.

CHROMOSOMAL LOCATION

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

SOURCE

ORP-7 (E-2) is a mouse monoclonal antibody raised against amino acids 172-310 mapping within an internal region of ORP-7 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ORP-7 (E-2) is available conjugated to agarose (sc-515540 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515540 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515540 PE), fluorescein (sc-515540 FITC), Alexa Fluor® 488 (sc-515540 AF488), Alexa Fluor® 546 (sc-515540 AF546), Alexa Fluor® 594 (sc-515540 AF594) or Alexa Fluor® 647 (sc-515540 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515540 AF680) or Alexa Fluor® 790 (sc-515540 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ORP-7 (E-2) is recommended for detection of ORP-7 of human origin and Osbpl7 of mouse and rat origin by Western Blotting (starting dilution 1:100, 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 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.

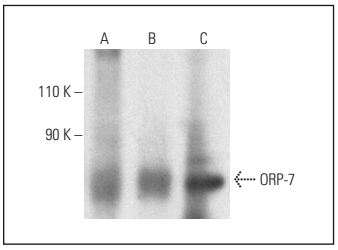
Molecular Weight of ORP-7: 95 kDa.

Positive Controls: human kidney extract: sc-363764, mouse skeletal muscle extract: sc-364250 or human skeletal muscle extract: sc-363776.

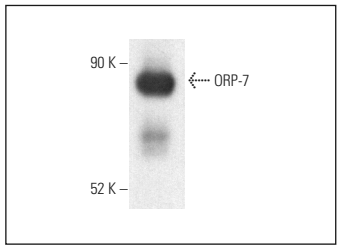
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ORP-7 (E-2): sc-515540. Western blot analysis of ORP-7 expression in human tonsil (**A**), human kidney (**B**) and mouse skeletal muscle (**C**) tissue extracts. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



ORP-7 (E-2): sc-515540. Western blot analysis of ORP-7 expression in human skeletal muscle tissue extract. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.

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 for detailed protocols and support products.