

# OSR1 (P-18): sc-67721

## BACKGROUND

OSR (odd-skipped related) proteins belong to the Odd C<sub>2</sub>H<sub>2</sub>-type zinc-finger protein family and are involved in embryonic development and bone formation. OSR1 (odd-skipped-related 1), also designated ODD, is a 266 amino acid protein that is expressed in the colon, small intestine, prostate, testis and fetal lung. OSR1 is upregulated in several pancreatic and esophageal cancer cell lines and downregulated in some primary gastric cancers. OSR1 contains three C<sub>2</sub>H<sub>2</sub>-type zinc fingers, a tyrosine phosphorylation site, and several putative PXXP SH3 binding motifs. OSR1 may play a critical role in metanephric kidney formation. Absence of OSR1 in mice causes lack of formation of the meta-nephric mesenchyme and null expression of EYA1, Six2, Pax, Sall1 and GDNF, which are proteins involved in normal kidney development.

## REFERENCES

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- So, P.L. and Danielian, P.S. 1999. Cloning and expression analysis of a mouse gene related to *Drosophila* odd-skipped. Mech. Dev. 84: 157-160.
- Katoh, M. 2002. Molecular cloning and characterization of OSR1 on human chromosome 2p24. Int. J. Mol. Med. 10: 221-225.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608891. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Wang, Q., et al. 2005. Odd-skipped related 1 (Odd 1) is an essential regulator of heart and urogenital development. Dev. Biol. 288: 582-594.
- James, R.G., et al. 2006. Odd-skipped related 1 is required for development of the metanephric kidney and regulates formation and differentiation of kidney precursor cells. Development 133: 2995-3004.

## CHROMOSOMAL LOCATION

Genetic locus: OSR1 (human) mapping to 2p24.1; Osr1 (mouse) mapping to 12 A1.1.

## SOURCE

OSR1 (P-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of OSR1 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-67721 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

OSR1 (P-18) is recommended for detection of OSR1 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).

OSR1 (P-18) is also recommended for detection of OSR1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for OSR1 siRNA (h): sc-62721, OSR1 siRNA (m): sc-62722, OSR1 shRNA Plasmid (h): sc-62721-SH, OSR1 shRNA Plasmid (m): sc-62722-SH, OSR1 shRNA (h) Lentiviral Particles: sc-62721-V and OSR1 shRNA (m) Lentiviral Particles: sc-62722-V.

Molecular Weight of OSR1: 30 kDa.

Positive Controls: SW480 nuclear extract: sc-2155.

## 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.

## SELECT PRODUCT CITATIONS

- Dauner, K., et al. 2013. Targeted expression of anoctamin calcium-activated chloride channels in rod photoreceptor terminals of the rodent retina. Invest. Ophthalmol. Vis. Sci. 54: 3126-3136.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **OSR1 (C-8): sc-376545** or **OSR1 (G-5): sc-376529**, our highly recommended monoclonal alternatives to OSR1 (P-18).