

OSR1 (G-5): sc-376529

BACKGROUND

OSR (odd-skipped related) proteins belong to the odd C₂H₂-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 C₂H₂-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 metanephric mesenchyme and null expression of EYA1, Six2, Pax, Sall1 and GDNF, which are proteins involved in normal kidney development.

REFERENCES

1. Balakrishnan, M.S., et al. 1977. Glutamine synthetase from *Salmonella typhimurium*: manganese(II), substrate, and inhibitor interaction with the unadenylylated enzyme. Arch. Biochem. Biophys. 181: 603-615.
2. Hart, M.C., et al. 1996. Comparison of the structure and expression of odd-skipped and two related genes that encode a new family of zinc finger proteins in *Drosophila*. Genetics 144: 171-182.
3. So, P.L., et al. 1999. Cloning and expression analysis of a mouse gene related to *Drosophila* odd-skipped. Mech. Dev. 84: 157-160.
4. Katoh, M. 2002. Molecular cloning and characterization of OSR1 on human chromosome 2p24. Int. J. Mol. Med. 10: 221-225.
5. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608891. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. 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.
7. 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 (G-5) is a mouse monoclonal antibody raised against amino acids 129-166 mapping within an internal region of OSR1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-376529 X, 200 µg/0.1 ml.

STORAGE

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

APPLICATIONS

OSR1 (G-5) is recommended for detection of OSR1 of mouse, rat and human 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 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.

OSR1 (G-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

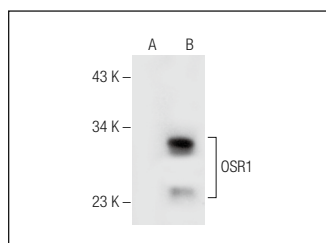
Molecular Weight of OSR1: 30 kDa.

Positive Controls: OSR1 (m): 293T Lysate: sc-122277.

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



OSR1 (G-5): sc-376529. Western blot analysis of OSR1 expression in non-transfected: sc-117752 (A) and mouse OSR1 transfected: sc-122277 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Zhou, Y., et al. 2021. OSR1 regulates hepatic inflammation and cell survival in the progression of non-alcoholic fatty liver disease. Lab. Invest. 101: 477-489.

RESEARCH USE

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