

# OSR1 (C-8): sc-376545

## 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 metanephric mesenchyme and null expression of EYA1, Six2, Pax, Sall1 and GDNF, which are proteins involved in normal kidney development.

## CHROMOSOMAL LOCATION

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

## SOURCE

OSR1 (C-8) 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 IgG<sub>2a</sub> 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-376545 X, 200 µg/0.1 ml.

OSR1 (C-8) is available conjugated to agarose (sc-376545 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376545 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376545 PE), fluorescein (sc-376545 FITC), Alexa Fluor® 488 (sc-376545 AF488), Alexa Fluor® 546 (sc-376545 AF546), Alexa Fluor® 594 (sc-376545 AF594) or Alexa Fluor® 647 (sc-376545 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376545 AF680) or Alexa Fluor® 790 (sc-376545 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

OSR1 (C-8) 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 (C-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

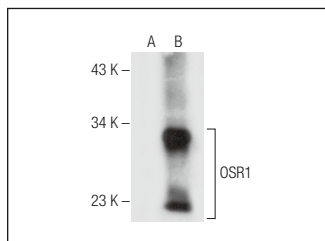
Molecular Weight of OSR1: 30 kDa.

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

## STORAGE

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

## DATA



OSR1 (C-8): sc-376545. 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

- Otani, K., et al. 2014. Odd-skipped related 1 is a novel tumour suppressor gene and a potential prognostic biomarker in gastric cancer. *J. Pathol.* 234: 302-315.
- Stumm, J., et al. 2018. Odd skipped-related 1 (OSR1) identifies muscle-interstitial fibro-adipogenic progenitors (FAPs) activated by acute injury. *Stem Cell Res.* 32: 8-16.
- Gao, J.L., et al. 2019. Suppression of WNK1-SPAK/OSR1 attenuates bone cancer pain by regulating NKCC1 and KCC2. *J. Pain* 20: 1416-1428.
- Zhang, F. and Jiang, Z. 2020. Downregulation of OSR1 promotes colon adenocarcinoma progression via FAK-mediated Akt and MAPK signaling. *Onco Targets Ther.* 13: 3489-3500.
- He, P., et al. 2020. The changing mouse embryo transcriptome at whole tissue and single-cell resolution. *Nature* 583: 760-767.
- Wang, Y., et al. 2020. Reduced expression of odd-skipped related transcription factor 1 promotes proliferation and invasion of breast cancer cells and indicates poor patient prognosis. *Oncol. Lett.* 20: 2946-2954.
- Sun, J., et al. 2022. THZ1 targeting CDK7 suppresses c-KIT transcriptional activity in gastrointestinal stromal tumours. *Cell Commun. Signal.* 20: 138.
- Lee, E.Y., et al. 2022. Glutamyl-prolyl-tRNA synthetase 1 coordinates early endosomal anti-inflammatory AKT signaling. *Nat. Commun.* 13: 6455.

## 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) for detailed protocols and support products.

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