

# OS4 (N-17): sc-69521

## BACKGROUND

OS4, also known as CTDSP2 (carboxy-terminal domain RNA polymerase II polypeptide A small phosphatase 2) or SCP2, is a 271 amino acid nuclear protein that is implicated in the development of sarcomas. Expressed ubiquitously with particularly high expression observed in the pancreas, OS4 functions in the regulation of androgen-dependent transcription by globally silencing neuronal genes. OS4 contains one FCP1 homology domain and, acting as a Smad2/3 linker phosphatase, can enhance Smad2/3 signaling. Through its ability to interact with Smad2/3, OS4 contributes to the final signaling events in the Smad pathway, and thus is thought to be a crucial component in the metastasis of certain cancers. Overexpression of OS4 may lead to the development of primary sarcomas, as well as brain tumors.

## REFERENCES

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3. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608711. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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6. Wrighton, K.H., Willis, D., Long, J., Liu, F., Lin, X. and Feng, X.H. 2006. Small C-terminal domain phosphatases dephosphorylate the regulatory linker regions of Smad2 and Smad3 to enhance transforming growth factor- $\beta$  signaling. *J. Biol. Chem.* 281: 38365-38375.
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## CHROMOSOMAL LOCATION

Genetic locus: CTDSP2 (human) mapping to 12q14.1; Ctdsp2 (mouse) mapping to 10 D3.

## SOURCE

OS4 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of OS4 of human origin.

## STORAGE

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

## 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-69521 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

OS4 (N-17) is recommended for detection of OS4 of mouse 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).

OS4 (N-17) is also recommended for detection of OS4 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for OS4 siRNA (h): sc-76008, OS4 siRNA (m): sc-155922, OS4 shRNA Plasmid (h): sc-76008-SH, OS4 shRNA Plasmid (m): sc-155922-SH, OS4 shRNA (h) Lentiviral Particles: sc-76008-V and OS4 shRNA (m) Lentiviral Particles: sc-155922-V.

Molecular Weight of OS4: 32 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

## 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.