

Smad8 (R-64): sc-11393

BACKGROUND

Smad proteins, the mammalian homologs of the *Drosophila* Mothers against dpp (Mad) have been implicated as downstream effectors of TGF β /BMP signaling. Smad1 (also designated Madr1 or JV4-1), Smad5 and mammalian Smad8 (also designated Smad9 or MadH6) are effectors of BMP2 and BMP4 function while Smad2 (also designated Madr2 or JV18-1) and Smad3 are involved in TGF β and Activin-mediated growth modulation. Smad4 (also designated DPC4) has been shown to mediate all of the above activities through interaction with various Smad family members. Smad6 and Smad7 regulate the response to Activin/TGF β signaling by interfering with TGF β -mediated phosphorylation of other Smad family members.

REFERENCES

1. Liu, F., et al. 1996. A human Mad protein acting as a BMP-regulated transcriptional activator. *Nature* 381: 620-623.
2. Zhang, Y., et al. 1996. Receptor-associated Mad homologues synergize as effectors of the TGF β response. *Nature* 383: 168-172.
3. Lagna, G., et al. 1996. Partnership between DPC4 and Smad proteins in TGF β signalling pathways. *Nature* 383: 832-836.
4. Eppert, K., et al. 1996. Madr2 maps to 18q21 and encodes a TGF β -regulated Mad-related protein that is functionally encoded in colorectal carcinoma. *Cell* 86: 543-552.
5. Massaoos, J. and Hata, A. 1997. TGF β signalling through the Smad pathway. *Trends Cell. Biol.* 7: 187-192.
6. Chen, Y., et al. 1997. Smad8 mediates the signaling of the receptor serine kinase. *Proc. Natl. Acad. Sci. USA* 94: 12938-12943.

CHROMOSOMAL LOCATION

Genetic locus: SMAD9 (human) mapping to 13q13.3; Smad9 (mouse) mapping to 3 C.

SOURCE

Smad8 (R-64) is a rabbit polyclonal antibody raised against amino acids 180-243 mapping to an internal region of Smad8 of rat origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-11393 X, 200 μ g/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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

Smad8 (R-64) is recommended for detection of Smad8 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

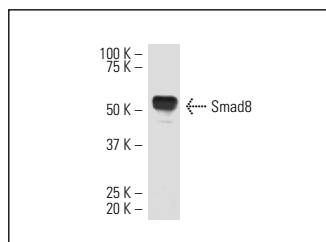
Suitable for use as control antibody for Smad8 siRNA (h): sc-38382, Smad8 siRNA (m): sc-38383, Smad8 shRNA Plasmid (h): sc-38382-SH, Smad8 shRNA Plasmid (m): sc-38383-SH, Smad8 shRNA (h) Lentiviral Particles: sc-38382-V and Smad8 shRNA (m) Lentiviral Particles: sc-38383-V.

Smad8 (R-64) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

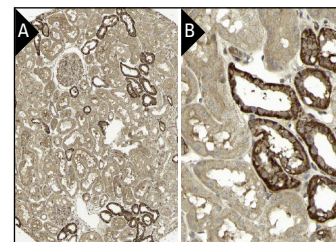
Molecular Weight of Smad8: 52 kDa.

Positive Controls: SK-N-MC nuclear extract: sc-2154.

DATA



Smad8 (R-64): sc-11393. Western blot analysis of Smad8 expression in SK-N-MC nuclear extract.



Smad8 (R-64): sc-11393. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in glomeruli and tubuli at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

1. Ye, L., et al. 2009. Bone morphogenetic protein-10 suppresses the growth and aggressiveness of prostate cancer cells through a Smad independent pathway. *J. Urol.* 181: 2749-2759.
2. Jin, C., et al. 2009. Smad ubiquitination regulatory factor 2 promotes metastasis of breast cancer cells by enhancing migration and invasiveness. *Cancer Res.* 69: 735-740.

RESEARCH USE

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

MONOS
Satisfaction
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Try **Smad8 (3E5): sc-293413**, our highly recommended monoclonal alternative to Smad8 (R-64).