SANTA CRUZ BIOTECHNOLOGY, INC.

Smad6 (H-150): sc-13048

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Smad proteins, the mammalian homologs of the *Drosophila* Mothers against dpp (Mad) have been implicated as downstream effectors of TGFβ/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 TGFβ 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/TGFβ signaling by interfering with TGFβ-mediated phosphorylation of other Smad family members.

CHROMOSOMAL LOCATION

Genetic locus: SMAD6 (human) mapping to 15q22.31; Smad6 (mouse) mapping to 9 C.

SOURCE

Smad6 (H-150) is a rabbit polyclonal antibody raised against amino acids 41-190 of Smad6 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-13048 X, 200 µg/0.1 ml.

APPLICATIONS

Smad6 (H-150) is recommended for detection of Smad6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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). Smad6 (H-150) is also recommended for detection of Smad6 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Smad6 siRNA (h): sc-38380, Smad6 siRNA (m): sc-38381, Smad6 shRNA Plasmid (h): sc-38380-SH, Smad6 shRNA Plasmid (m): sc-38381-SH, Smad6 shRNA (h) Lentiviral Particles: sc-38380-V and Smad6 shRNA (m) Lentiviral Particles: sc-38381-V.

Smad6 (H-150) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Smad6 isoforms: 54/36/26 kDa.

Positive Controls: Smad6 (m): 293T Lysate: sc-123643, A549 cell lysate: sc-2413 or Jurkat whole cell lysate: sc-2204.

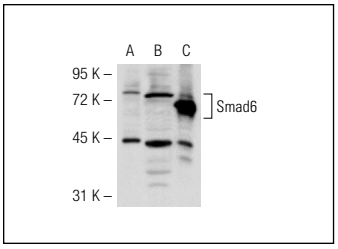
STORAGE

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

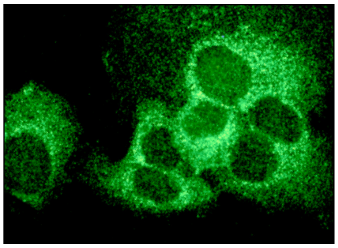
RESEARCH USE

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

DATA



Smad6 (H-150): sc-13048. Western blot analysis of Smad6 expression in non-transfected 293T: sc-117752 (**A**), mouse Smad6 transfected 293T: sc-123643 (**B**) and A549 (**C**) whole cell lysates.



Smad6 (H-150): sc-13048. Immunofluorescence staining of methanol-fixed A549 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Yang, J., et al. 2003. Hepatocyte growth factor suppresses renal interstitial myofibroblast activation and intercepts Smad signal transduction. Am. J. Pathol. 163: 621-632.
2. Liu, X., et al. 2003. Smad7 but not Smad6 cooperates with oncogenic Ras to cause malignant conversion in a mouse model for squamous cell carcinoma. Brain Res. 63: 7760-7768.
3. Yang, J., et al. 2003. Downregulation of Smad transcriptional corepressors SnoN and Ski in the fibrotic kidney: an amplification mechanism for TGFβ1 signaling. J. Am. Soc. Nephrol. 14: 3167-3177.
4. Yang, J., et al. 2005. A novel mechanism by which hepatocyte growth factor blocks tubular epithelial to mesenchymal transition. J. Am. Soc. Nephrol. 16: 68-78.
5. Qian, B.F., et al. 2008. Reduced responsiveness of HLA-B27 transgenic rat cells to TGFβ and IL-10-mediated regulation of IFN-γ production. Inflamm. Bowel Dis. 14: 921-930.
6. Carlson, M.E., et al. 2008. Imbalance between pSmad3 and Notch induces CDK inhibitors in old muscle stem cells. Nature 454: 528-532.
7. Wang, S., et al. 2012. Up-regulation of BMP-2 antagonizes TGF-β1/ROCK-enhanced cardiac fibrotic signalling through activation of Smurf1/Smad6 complex. J. Cell. Mol. Med. 16: 2301-2310.
8. Ding, Z.Y., et al. 2014. Smad6 suppresses the growth and self-renewal of hepatic progenitor cells. J. Cell. Physiol. 229: 651-660.