**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 Mad1 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, SMAD7 (human) mapping to 18q21.1; Smad6 (mouse) mapping to 9 C, Smad7 (mouse) mapping to 18E3.

**SOURCE**

Smad6/7 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Smad7 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. Blocking peptide available for competition studies, sc-7004 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-7004 X, 200 µg/0.1 ml.

**APPLICATIONS**

Smad6/7 (N-19) is recommended for detection of Smad6 and Smad7 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).

Smad6/7 (N-19) is also recommended for detection of Smad6 and Smad7 in additional species, including canine, bovine and porcine.

Smad6/7 (N-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Smad6: 53 kDa.

Molecular Weight of Smad7: 51 kDa.

Positive Controls: A549 cell cystate: sc-2413.

**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**

**SELECT PRODUCT CITATIONS**


Try Smad6 (D-4): sc-25321, our highly recommended monoclonal alternative to Smad6/7 (N-19).