SANTA CRUZ BIOTECHNOLOGY, INC.

Smad6 (S-20): sc-6034

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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 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus 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.

Blocking peptide available for competition studies, sc-6034 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-6034 X, 200 µg/0.1 ml.

APPLICATIONS

Smad6 (S-20) 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 (S-20) is also recommended for detection of Smad6 in additional species, including equine, canine, bovine, porcine and avian.

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 (S-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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

Positive Controls: A549 cell lysate: sc-2413, Jurkat whole cell lysate: sc-2204 or rat testis extract: sc-2400.

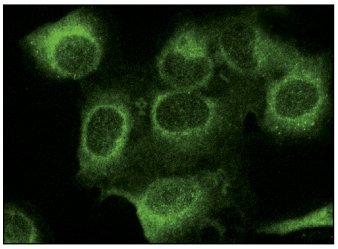
RESEARCH USE

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

STORAGE

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

DATA



Smad6 (S-20): sc-6034. Immunofluorescence staining of methanol-fixed A549 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Yu, Y., et al. 2002. TGF-β, BMPS, and their signal transducing mediators, Smads, in rat fracture healing. J. Biomed. Mater. Res. 60: 392-397.
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4. Kim, S.J., et al. 2008. Gene expression during inactivity-induced muscle atrophy: effects of brief bouts of a forceful contraction countermeasure. J. Appl. Physiol. 105: 1246-1254.
5. Konrad, L., et al. 2008. Identification of a new human Smad6 splice variant. Andrologia 40: 358-363.
6. Volle, D.H., et al. 2009. The orphan nuclear receptor small heterodimer partner mediates male infertility induced by diethylstilbestrol in mice. J. Clin. Invest. 119: 3752-3764.
7. Sriperumbudur, R., et al. 2010. Transforming growth factor-β (TGFβ) and its signaling components in periovulatory pig follicles. Anim. Reprod. Sci. 120: 84-94.
8. Ding, Z.Y., et al. 2014. Smad6 suppresses the growth and self-renewal of hepatic progenitor cells. J. Cell. Physiol. 229: 651-660.