Smad1 (A-4): sc-7965

**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: SMAD1 (human) mapping to 4q31.21; Smad1 (mouse) mapping to 8 C2.

**SOURCE**

Smad1 (A-4) is a mouse monoclonal antibody raised against amino acids 1-465 representing full length of Smad1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications. Smad1 (A-4) is available conjugated to agarose (sc-7965 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-7965 HRP), 200 µg/ml, for WB, IHC, and ELISA; to either phycoerythrin (sc-7965 PE), fluorescein (sc-7965 FITC), Alexa Fluor® 488 (sc-7965 AF488), Alexa Fluor® 546 (sc-7965 AF546), Alexa Fluor® 594 (sc-7965 AF594) or Alexa Fluor® 647 (sc-7965 AF647), 200 µg/ml, for WB (RGB), IF, IHCP, and FCM; and to either Alexa Fluor® 680 (sc-7965 AF680) or Alexa Fluor® 790 (sc-7965 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF, and FCM. Smad1 (A-4) is recommended for detection of Smad1 of mouse, rat, human and mink 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), 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 Smad1 siRNA (h): sc-29483, Smad1 siRNA (m): sc-36507, Smad1 shRNA Plasmid (h): sc-29483-SH, Smad1 shRNA Plasmid (m): sc-36507-SH, Smad1 shRNA Plasmid (r): sc-63289-SH, Smad1 shRNA (h) Lentiviral Particles: sc-29483-V, Smad1 shRNA (m) Lentiviral Particles: sc-36507-V and Smad1 shRNA (r) Lentiviral Particles: sc-63289-V.

Smad1 (A-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

**APPLICATIONS**

Smad1 (A-4) is recommended for detection of Smad1 of mouse, rat, human and mink 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), 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).

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**Molecular Weight of Smad1**: 52-56 kDa.

**DATA**

**STORAGE**

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

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

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