**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: SMAD7 (human) mapping to 18q21.1; Smad7 (mouse) mapping to 18 E3.

**SOURCE**

Smad7 (B-8) is a mouse monoclonal antibody raised against amino acids 319-397 of Smad7 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 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, sc-365846 X, 200 µg/0.1 ml.

Smad7 (B-8) is available conjugated to agarose (sc-365846 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365846 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365846 PE), fluorescein (sc-365846 FITC), Alexa Fluor® 488 (sc-365846 AF488), Alexa Fluor® 546 (sc-365846 AF546), Alexa Fluor® 594 (sc-365846 AF594) or Alexa Fluor® 647 (sc-365846 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365846AF680) or Alexa Fluor® 790 (sc-365846 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

Smad7 (B-8) is recommended for detection of Smad7 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Smad7 siRNA (h): sc-36508, Smad7 siRNA (m): sc-36509, Smad7 shRNA Plasmid (h): sc-36508-SH, Smad7 shRNA Plasmid (m): sc-36509-SH, Smad7 shRNA (h) Lentiviral Particles: sc-36508-V and Smad7 shRNA (m) Lentiviral Particles: sc-36509-V.

Smad7 (B-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Smad7: 46 kDa.

Positive Controls: A549 cell lysate: sc-2413, HeLa whole cell lysate: sc-2200 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.

**DATA**

**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.