Smad2/3 (C-8): sc-133098

**BACKGROUND**

Smad proteins, the mammalian homologs of the Drosophila mothers against decapentaplegic (Mad), have been implicated as downstream effectors of TGFβ/BMP signaling. Smad1 (also designated Madr1 or JV4-1) and Smad5 are effectors of BMP-2 and BMP-4 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 proteins.

**CHROMOSOMAL LOCATION**

Genetic locus: SMAD2 (human) mapping to 18q21.1, SMAD3 (human) mapping to 15q22.33; Smad2 (mouse) mapping to 18 E3, Smad3 (mouse) mapping to 9 C.

**SOURCE**

Smad2/3 (C-8) is a mouse monoclonal antibody raised against amino acids 1-425 representing full length Smad3 of human origin.

**PRODUCT**

Each vial contains 200 μg IgG2a 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-133098 X, 200 μg/0.1 ml.

Smad2/3 (C-8) is available conjugated to agarose (sc-133098 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133098 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-133098 PE), fluorescein (sc-133098 FITC), Alexa Fluor® 546 (sc-133098 AF546), Alexa Fluor® 594 (sc-133098 AF594) or Alexa Fluor® 647 (sc-133098 AF647), 200 μg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-133098 AF680) or Alexa Fluor® 790 (sc-133098 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Smad2/3 (C-8) is also recommended for detection of Smad2 and Smad3 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), 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).

Smad2/3 (C-8) is also recommended for detection of Smad2 and Smad3 in additional species, including canine and porcine.

Suitable for use as control antibody for Smad2/3 siRNA (h): sc-37238, Smad2/3 siRNA (m): sc-37239, Smad2/3 shRNA Plasmid (h): sc-37238-SH, Smad2/3 shRNA Plasmid (m): sc-37239-SH, Smad2/3 shRNA (h) Lentiviral Particles: sc-37238-V and Smad2/3 shRNA (m) Lentiviral Particles: sc-37239-V.

Smad2/3 (C-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Smad2/3: 55-60 kDa.

**APPLICATIONS**

2. Inoue, K., et al. 2012. Maxacalcitol ameliorates tubulointerstitial fibrosis or JV18-1) and Smad3 are involved in TGF-β-mediated phosphorylation of other Smad proteins.

**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**

2. Inoue, K., et al. 2012. Maxacalcitol ameliorates tubulointerstitial fibrosis or JV18-1) and Smad3 are involved in TGF-β-mediated phosphorylation of other Smad proteins.

**RESEARCH USE**

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