**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 Mad1 or JV4-1) and Smad4 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: SMAD 2 (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(plus), and ELISA; to either phycoerythrin (sc-133098 PE), fluorescein (sc-133098 FITC), Alexa Fluor® 488 (sc-133098 AF488), 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(plus)) 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.

**Applications**

Smad2/3 (C-8) is 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 1:30-1:300).

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 (m): sc-37238-SH, Smad2/3 shRNA (h): 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.

**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.

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