

Smad2/3 (N-19): sc-6032

BACKGROUND

Smad proteins, the mammalian homologs of the *Drosophila* mothers against decapentaplegic (Mad), have been implicated as downstream effectors of TGF β /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 TGF β 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/TGF β signaling by interfering with TGF β -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 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Smad2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6032 P, (100 μ g 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-6032 X, 200 μ g/0.1 ml.

APPLICATIONS

Smad2/3 (N-19) is recommended for detection of Smad2 and Smad3 of mouse, rat, human and, to a lesser extent, mink origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Smad2/3 (N-19) is also recommended for detection of Smad2 and Smad3 in additional species, including equine, canine, bovine, porcine and avian.

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 (N-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

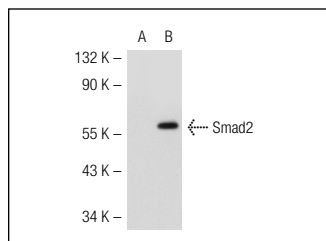
Molecular Weight of Smad2/3: 55-60 kDa.

Positive Controls: Smad2 (h): 293T Lysate: sc-113452, Smad2 (m): 293T Lysate: sc-123638 or U-937 cell lysate: sc-2239.

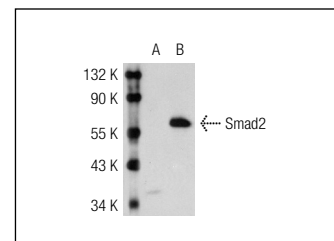
STORAGE

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

DATA



Smad2/3 (N-19): sc-6032. Western blot analysis of Smad2 expression in non-transfected: sc-117752 (A) and mouse Smad2 transfected: sc-123638 (B) 293T whole cell lysates.



Smad2/3 (N-19): sc-6032. Western blot analysis of Smad2 expression in non-transfected: sc-117752 (A) and human Smad2 transfected: sc-113452 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Tsukazaki, T., et al. 1998. SARA, a FYVE domain protein that recruits Smad2 to the TGF β receptor. *Cell* 95: 779-791.
2. Yue, Z., et al. 2010. Interrogating cell signalling network sensitively monitors cell fate transition during early differentiation of mouse embryonic stem cells. *Sci. China Life Sci.* 53: 78-86.
3. Revuelta-Cervantes, J., et al. 2011. Protein tyrosine phosphatase 1B (PTP1B) deficiency accelerates hepatic regeneration in mice. *Am. J. Pathol.* 178: 1591-1604.
4. Baugé, C., et al. 2011. Modulation of transforming growth factor β signalling pathway genes by transforming growth factor β in human osteoarthritic chondrocytes: involvement of Sp1 in both early and late response cells to transforming growth factor β . *Arthritis Res. Ther.* 13: R23.
5. Sarközi, R., et al. 2011. Oncostatin M is a novel inhibitor of TGF- β 1-induced matricellular protein expression. *Am. J. Physiol. Renal Physiol.* 301: F1014-F1025.
6. Tecalco-Cruz, A.C., et al. 2012. Transforming growth factor- β /SMAD target gene SKIL is negatively regulated by the transcriptional cofactor complex SNON-SMAD4. *J. Biol. Chem.* 287: 26764-26776.

RESEARCH USE

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



MONOS
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Try **Smad2/3 (C-8): sc-133098** or **Smad2/3 (A-3): sc-398844**, our highly recommended monoclonal alternatives to Smad2/3 (N-19). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Smad2/3 (C-8): sc-133098**.