

Smad2 (m): 293T Lysate: sc-123638

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.

REFERENCES

1. Liu, F., et al. 1996. A human Mad protein acting as a BMP-regulated transcriptional activator. *Nature* 381: 620-623.
2. Hoodless, P.A., et al. 1996. MADR1, a MAD-related protein that functions in BMP-2 signaling pathways. *Cell* 85: 489-500.
3. Eppert, K., et al. 1996. MADR2 maps to 18q21 and encodes a TGF β -regulated MAD-related protein that is functionally mutated in colorectal carcinoma. *Cell* 86: 543-552.
4. Zhang, Y., et al. 1996. Receptor-associated Mad homologues synergize as effectors of the TGF β response. *Nature* 383: 168-172.
5. Lagna, G., et al. 1996. Partnership between DPC4 and Smad proteins in TGF β signalling pathways. *Nature* 383: 832-836.
6. Massagué, J., et al. 1997. TGF β signalling through the Smad pathway. *Trends Cell Biol.* 7: 187-192.
7. Imamura, T., et al. 1997. Smad6 inhibits signalling by the TGF β superfamily. *Nature* 389: 622-626.
8. Nakao, A., et al. 1997. Identification of Smad7, a TGF β -inducible antagonist of TGF β signalling. *Nature* 389: 631-635.
9. Gaspar, N.J., et al. 2007. Inhibition of TGF β signaling reduces pancreatic adenocarcinoma growth and invasiveness. *Mol. Pharmacol.* 72: 152-161.

CHROMOSOMAL LOCATION

Genetic locus: Smad2 (mouse) mapping to 18 E3.

PRODUCT

Smad2 (m): 293T Lysate represents a lysate of mouse Smad2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

Smad2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Smad2 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

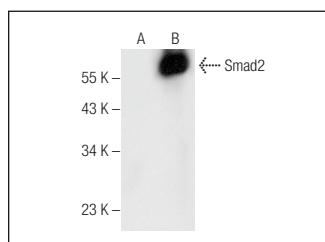
Smad2/3 (E-1): sc-376928 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Smad2 expression in Smad2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

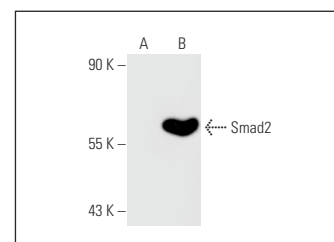
To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Smad2/3 (E-1): sc-376928. Western blot analysis of Smad2 expression in non-transfected: sc-117752 (A) and mouse Smad2 transfected: sc-123638 (B) 293T whole cell lysates.



Smad2 (YZ-13): sc-101153. Western blot analysis of Smad2 expression in non-transfected: sc-117752 (A) and mouse Smad2 transfected: sc-123638 (B) 293T whole cell lysates.

RESEARCH USE

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