

Smad8 (A-1): sc-518051

BACKGROUND

Smad proteins, the mammalian homologs of the *Drosophila* Mothers against dpp (Mad) have been implicated as downstream effectors of TGF β /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 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 family members.

REFERENCES

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- Lagna, G., et al. 1996. Partnership between DPC4 and SMAD proteins in TGF- β signalling pathways. *Nature* 383: 832-836.
- Massaous, J. and Hata, A. 1997. TGF β signalling through the Smad pathway. *Trends Cell Biol.* 7: 187-192.
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- Heldin, C.H., et al. 1997. TGF- β signalling from cell membrane to nucleus through Smad proteins. *Nature* 390: 465-471.
- van Grunsven, L.A., et al. 2005. Smads and chromatin modulation. *Cytokine Growth Factor Rev.* 16: 495-512.

CHROMOSOMAL LOCATION

Genetic locus: SMAD9 (human) mapping to 13q13.3; Smad9 (mouse) mapping to 3 C.

SOURCE

Smad8 (A-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 45-64 near the N-terminus of Smad8 of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Smad8 (A-1) is recommended for detection of Smad8 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 Smad8 siRNA (h): sc-38382, Smad8 siRNA (m): sc-38383, Smad8 siRNA (r): sc-63291, Smad8 shRNA Plasmid (h): sc-38382-SH, Smad8 shRNA Plasmid (m): sc-38383-SH, Smad8 shRNA Plasmid (r): sc-63291-SH, Smad8 shRNA (h) Lentiviral Particles: sc-38382-V, Smad8 shRNA (m) Lentiviral Particles: sc-38383-V and Smad8 shRNA (r) Lentiviral Particles: sc-63291-V.

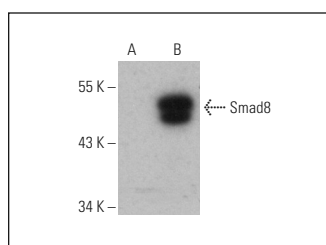
Molecular Weight of Smad8: 52 kDa.

Positive Controls: human Smad8 transfected whole cell lysate.

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 MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



Smad8 (A-1): sc-518051. Western blot analysis of Smad8 expression in non transfected (A) and human Smad8 transfected (B) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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