

Cat. No: MAB-94275
Conjugate: Unconjugated
Size: 100 ul
Clone: D27F4
Concentration: 1mg/ml
Host: Rb
Isotype: IgG
Reactivity: Hu
Applications: WB 1:1000
Molecular Weight: 52, 60 kDa

Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser465/467 of human Smad2 protein.

Background: Members of the Smad family of signal transduction molecules are components of a critical intracellular pathway that transmit TGF- β signals from the cell surface into the nucleus. Three distinct classes of Smads have been defined: the receptor-regulated Smads (RSmads), which include Smad1, 2, 3, 5, and 8; the common-mediator Smad (co-Smad), Smad4; and the antagonistic or inhibitory Smads (I-Smads), Smad6 and 7 (1-5). Activated type I receptors associate with specific R-Smads and phosphorylate them on a conserved carboxy terminal SSXS motif. The phosphorylated R-Smad dissociates from the receptor and forms a heteromeric complex with the co-Smad (Smad4), allowing translocation of the complex to the nucleus. Once in the nucleus, Smads can target a variety of DNA binding proteins to regulate transcriptional responses (6-8). Phospho-Smad2 (Ser465/467)/ Smad3 (Ser423/425) (D27F4) Rabbit mAb recognizes endogenous levels of Smad2 protein when phosphorylated at Ser465 and Ser467. This antibody also recognizes endogenous levels of Smad3 protein when phosphorylated Ser422 only or at both Ser423 and Ser425.

Form: liquid
Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.5
Storage: Store at -20°C. Avoid freeze / thaw cycles.

References

(1) Heldin, C.H. et al. (1997) Nature 390, 465-471. (2) Attisano, L. and Wrana, J.L. (1998) Curr. Opin. Cell Biol. 10, 188-194. (3) Derynck, R. et al. (1998) Cell 95, 737-740. (4) Massague, J. (1998) Annu. Rev. Biochem. 67, 753-791. (5) Whitman, M. (1998) Genes Dev. 12, 2445-2462. (6) Wu, G. et al. (2000) Science 287, 92-97. (7) Attisano, L. and Wrana, J.L. (2002) Science 296, 1646- 1647. (8) Moustakas, A. et al. (2001) J. Cell Sci. 114, 4359-4369.

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