

Product name:	Phospho-Smad3-S423/S425
Cat number:	MAB-94274
Conjugate:	Unconjugated
Size:	100 ul
Clone:	C25A9
Concentration:	1mg/ml
Host:	Rb
Isotype:	IgG
Reactivity:	Hu,Ms, Rt
Applications:	WB 1:1000,IHC(P) 1:50-100
Molecular Weight:	52 kDa
Purification:	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser423/425 of Smad3.
Form:	liquid
Buffer:	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage:	Store at -20°C. Avoid freeze / thaw cycles.
Background:	Members of the Smad family of signal transduction molecules are components of a critical intracellular pathway that transmits TGF-β signals from the cell surface into the nucleus. Three distinct classes of Smads have been defined: the receptor-regulated Smads (R-Smads), 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). Following stimulation by TGF-β, Smad2 and Smad3 become phosphorylated at carboxyl terminal serine residues (Ser465 and 467 on Smad2; Ser423 and 425 on Smad3) by TGF-β Receptor I. Phosphorylated Smad 2/3 can complex with Smad4 and translocate to the nucleus to regulate gene expression (9-11). Phospho-Smad3 (Ser423/425) (C25A9) Rabbit mAb detects endogenous levels of Smad3 when phosphorylated at Ser423/425. This antibody does not cross-react with other family members.