

<b>Cat. No:</b>	MAB-94274
<b>Conjugate:</b>	Unconjugated
<b>Size:</b>	100 ul
<b>Clone:</b>	C25A9
<b>Concentration:</b>	1mg/ml
<b>Host:</b>	Rb
<b>Isotype:</b>	IgG
<b>Reactivity:</b>	Hu,Ms, Rt
<b>Applications:</b>	WB 1:1000,IHC(P) 1:50-100
<b>Molecular Weight:</b>	52 kDa

**Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser423/425 of Smad3.

**Background:** Members of the Smad family of signal transduction molecules are components of a critical intracellular pathway that transmits TGF- $\beta$  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- $\beta$ , Smad2 and Smad3 become phosphorylated at carboxyl terminal serine residues (Ser465 and 467 on Smad2; Ser423 and 425 on Smad3) by TGF- $\beta$  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.

<b>Form:</b>	liquid
<b>Buffer:</b>	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
<b>Storage:</b>	Store at -20°C. Avoid freeze / thaw cycles.

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