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SMAD2/3 (D7G7) XP[®] Rabbit mAb (PE Conjugate)

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: FC-FP	Reactivity: H M R Mk	Sensitivity: Endogenous	Source/Isotype: Rabbit IgG	UniProt ID: #P84022, #Q15796	Entrez-Gene Id: 4088, 4087
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Product Usage Information	Application Flow Cytometry (Fixed/Permeabilized)	Dilution 1:50
Storage	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibodies. Protect from light. Do not freeze.	
Specificity/Sensitivity	SMAD2/3 (D7G7) XP [®] Rabbit mAb (PE Conjugate) recognizes endogenous levels of total SMAD2/3 protein.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding His198 of human SMAD2/3 protein.	
Description	This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated SMAD2/3 (D7G7) XP [®] Rabbit mAb #8685.	
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 (R-SMADs), which include SMAD1, 2, 3, 5, and 9; 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-SMADs dissociate from the receptor and form a heteromeric complex with SMAD4, initiating translocation of the heteromeric SMAD complex to the nucleus. Once in the nucleus, SMADs recruit a variety of DNA binding proteins that function to regulate transcriptional activity (6-8).	
Background References	<ol style="list-style-type: none"> Heldin, C.H. et al. (1997) <i>Nature</i> 390, 465-71. Attisano, L. and Wrana, J.L. (1998) <i>Curr Opin Cell Biol</i> 10, 188-94. Derynck, R. et al. (1998) <i>Cell</i> 95, 737-40. Massagué, J. (1998) <i>Annu Rev Biochem</i> 67, 753-91. Whitman, M. (1998) <i>Genes Dev</i> 12, 2445-62. Wrana, J.L. (2000) <i>Sci STKE</i> 2000, re1. Attisano, L. and Wrana, J.L. (2002) <i>Science</i> 296, 1646-7. Moustakas, A. et al. (2001) <i>J Cell Sci</i> 114, 4359-69. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Applications Key	FC-FP: Flow Cytometry (Fixed/Permeabilized)
Cross-Reactivity Key	H: Human M: Mouse R: Rat Mk: Monkey
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