



# Mouse anti-Mouse Smad2/3 monoclonal antibody, clone 29/Tnbe3/4 (CABT-B9322)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Immunogen</b>	Mouse Smad2 aa. 142-263
<b>Isotype</b>	IgG1, κ
<b>Source/Host</b>	Mouse
<b>Species Reactivity</b>	Human, Mouse, Rat, Dog
<b>Clone</b>	29/Tnbe3/4
<b>Purification</b>	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	WB; IF; IP
<b>Format</b>	Liquid
<b>Concentration</b>	250 µg/ml
<b>Size</b>	50 µg, 150 µg
<b>Buffer</b>	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
<b>Storage</b>	Store undiluted at -20°C.

## BACKGROUND

<b>Introduction</b>	The transforming growth factor $\beta$ (TGF $\beta$ )/activin/BMP family of growth factors plays a diverse
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and important role in growth, development, and differentiation. These growth factors act through their binding to heteromeric plasma membrane receptor protein kinases which, upon ligand binding, become activated and trigger an intracellular signaling cascade. Specifically, receptor activation induces the translocation of a set of conserved proteins named Smads (Sma- and Mad-related proteins) to the nucleus, resulting in gene activation. Smad2 is a ubiquitously expressed protein of 58 kDa that is phosphorylated and translocated to the nucleus in response to TGF $\beta$ , but not BMP. The overall response to TGF $\beta$  is growth inhibition. The Smad2 gene is located in chromosome 18q21.1 which is often absent in several human cancers. Furthermore, some missense mutations on the Smad2 gene were identified in colorectal carcinomas, suggesting Smad2 may function as a tumor suppressor in normal cells.

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<b>Keywords</b>	SMAD2; SMAD family member 2; JV18; MADH2; MADR2; JV18-1; hMAD-2; hSMAD2; mothers against decapentaplegic homolog 2; MAD homolog 2; mother against DPP homolog 2; Sma- and Mad-related protein 2; SMAD, mothers against DPP homolog 2;
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## GENE INFORMATION

Entrez Gene ID [4087](#)

UniProt ID [Q15796](#)