



Rabbit Anti-Human SMAD4 monoclonal antibody, clone 20I20M26 (CABT-L1598)

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

PRODUCT INFORMATION

Specificity	This antibody is predicted to react with Monkey, Cat, Horse, Pig, Bovine, Rabbit and Goat.
Target	SMAD4
Immunogen	full-length protein corresponding to human SMAD4 (aa 1-552)
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human
Clone	20I20M26
Purification	Protein A Purified
Conjugate	Unconjugated
Applications	FC, ICC, IF, WB
Format	Liquid
Concentration	0.5 mg/ml
Buffer	PBS, pH 7.2
Preservative	0.09% Sodium Azide
Storage	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

BACKGROUND

Introduction

Smad4 is encoded by the Smad4 gene that is located on chromosome 18 in humans. Smad4 is also known as Smad family member 4, Sma- and Mad-related protein 4 or Mothers against decapentaplegic (MAD) homolog 4. Smad4 contains N-terminal MH1 (MAD homology 1) and C-terminal MH2 (MAD homology 2) globular domains that are involved in DNA binding and protein interactions respectively. Binding of the TGF-beta superfamily of ligands that includes Transforming Growth Factor-beta (TGF-beta) and bone morphogenetic protein (BMP) to its cognate receptor allows phosphorylation of Smad 1, 2, 3, 5 and 8 (R-Smad, Receptor Smad). This signals for heterotrimerization with Smad4 (co-Smad, co-mediator Smad) and translocation of the complex to the nucleus. Inhibitory or antagonistic Smad (I-Smad) that includes Smad 6 and 7, interact with activated R-Smads and attenuate the signaling pathway. Smad4 acts as a tumor suppressor protein by transcriptionally regulating its target genes such as Cyclin D1 (downregulation) and collagen (upregulation) that inhibit cell proliferation. Dephosphorylation regulates nuclear export and nucleocytoplasmic dynamics of Smads.

Keywords

SMAD4;SMAD family member 4;MAD, mothers against decapentaplegic homolog 4 (Drosophila) , MADH4, SMAD, mothers against DPP homolog 4 (Drosophila);mothers against decapentaplegic homolog 4;DPC4;MAD homolog 4;SMAD, mothers against DPP homolog 4;deleted in pancreatic carcinoma locus 4;deletion target in pancreatic carcinoma 4;mothers against decapentaplegic, Drosophila, homolog of, 4

GENE INFORMATION

Entrez Gene ID

[4089](#)

UniProt ID

[Q13485](#)