PRODUCT INFORMATION

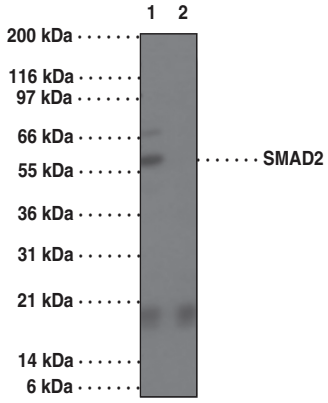
SMAD2 Polyclonal Antibody

Item No. 10823

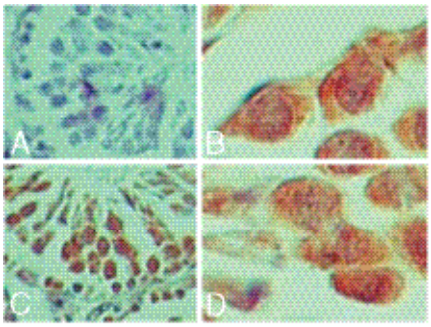
Overview and Properties

Contents:	This vial contains 100 µg of protein G-purified IgG
Immunogen:	Human SMAD2
Cross Reactivity:	(+) Human, chicken, mouse, and rat SMAD2
Form:	Liquid
Storage:	4°C (as supplied); Do not freeze
Stability:	≥6 months
Storage Buffer:	200 µl PBS with 0.05% BSA and 0.05% sodium azide.
Concentration:	1.0 mg/ml
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting concentration for IHC is 5 µg/ml and 2-4 µg/ml for WB.

Images



Lane 1: Rat muscle lysate (absence of immunizing peptide)
Lane 2: Rat muscle lysate (presence of immunizing peptide)



Immunohistochemical analysis of SMAD2 in formalin-fixed, paraffin-embedded mouse testis tissue using an isotype control (Panel A) and SMAD2 (Panel C, Panel D) at 5 ug/ml.

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Description

SMAD2 is an intracellular protein belonging to the Dwarfin (DWA/B)/SMAD family. SMAD2 associates with SMAD4 for translocation to the nucleus. It acts as an intracellular mediator of the TGFβ family of cytokines and activin type 1 receptor (ACVR1C). Hence it regulates multiple cellular processes like cell growth, proliferation, differentiation, and apoptosis and also cooperates with transcription factors to regulate expression of defined genes. Apart from playing an important role in TGFβ1-induced CTGF expression, SMADs also act as markers of epithelial-mesenchymal transition. SMAD2 also acts as an integrator of multiple signals in the regulation of NOS3 expression. It is ubiquitously expressed in most of tissues and may contribute to colorectal, hepatocellular, lung, and breast carcinomas as well as cervical cancer.

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