Datasheet for ABIN7566452

Recombinant anti-SMAD7 antibody

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Overview

Quantity:	50 µg
Target:	SMAD7
Reactivity:	Human
Host:	Human
Antibody Type:	Recombinant Antibody
Clonality:	Monoclonal
Conjugate:	This SMAD7 antibody is un-conjugated
Application:	ELISA, Immunocytochemistry (ICC), Proximity Ligation Assay (PLA)

Product Details

Purpose:	anti-SMAD7 (human), mAb (rec.) (SH585-IIC4)
Immunogen:	Synthetic human SMAD7 peptide (aa367-384).
Clone:	SH585-IIC4
Isotype:	IgG1
Characteristics:	Recombinant Antibody. Recognizes human SMAD7. Applications: ELISA, ICC, PLA. Clone: SH585-IIC4. Isotype: Human IgG1. Formulation: Liquid. In PBS. The TGF-beta signaling pathway regulates key cell fate decisions during embryonic development and in adult homeostasis. This pathway is deregulated in many pathological conditions, including cancer, autoimmunity and fibrotic diseases. TGF-beta functions as a tumor suppressor in early tumors, inhibiting progression through the cell cycle. TGF-beta binds a heterotetrameric cell surface complex composed of type I and II serine/threonine kinase TGF-beta receptors (TGFBRI and TGFBRII).

Ligand binding causes receptor phosphorylation and transmission of the signal to a class of intracellular intermediates, the receptor-regulated SMAD proteins. The SMAD family is divided into three subclasses: receptor regulated SMADs, (SMADs 1, 2, 3, 5 and 8), the common partner, (SMAD4) that functions via its interaction to the various SMADs, and the inhibitory SMADs, (SMADs 6 and 7). TGF-beta signaling pathways engage two specific receptor-regulated SMAD proteins, the SMAD2 and SMAD3. The C-terminal MH2 domains of the receptor-regulated SMADs are phosphorylated by the intracellular kinase domain of TGF-beta receptors. The receptor-regulated SMADs then interact with SMAD4 and translocate to the nucleus, where they act as transcriptional regulators. Although TGF-beta signaling engages the above three SMAD proteins, SMAD2, SMAD3 and SMAD4, there is a dominant role of SMAD3 as a mediator of both physiological, homeostatic signaling and of pathophysiological perturbed signaling in all diseases. The SMAD proteins are central nodes in the mechanisms of cross-talk between the TGF-beta pathway and other signaling pathways, including the Notch and Wnt signaling pathways. The SMAD proteins regulate multiple cellular processes, such as cell proliferation, apoptosis and differentiation. SMAD7, also known as Mothers Against Decapentaplegic homolog 7 (MADH7), inhibits selected pathways by binding directly to cell-surface receptors and preventing the activation-induced phosphorylation of other SMAD subunits.
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Product Details

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Purification:	Puified
Purity:	>95 % (SDS-PAGE)

Target Details

Target:	SMAD7
Alternative Name:	SMAD7 (SMAD7 Products)
UniProt:	O15105
Pathways:	Interferon-gamma Pathway, Cell-Cell Junction Organization

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	In PBS.
Handling Advice:	After opening, prepare aliquots and store at -20 °C.Avoid freeze/thaw cycles.Please handle under sterile conditions to avoid contamination.
Storage:	4 °C,-20 °C
Storage Comment:	Stable for at least 1 year after receipt when stored at -20°C. Stable for at least 1 week when stored at +4°C.