Human Smad2 Alexa Fluor® 594-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF4037T
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Smad2 in direct ELISAs.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Smad2 Lys20-Thr108 Accession # Q15796
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

SMAD2 (Sma and MAD-related protein 2; also MAD2, MADR2 and MADH2) is a 58-62 kDa member of the dwarfin/SMAD family of proteins. It is widely expressed, particularly in striated muscle, and exists constitutively in the cytoplasm. SMAD2 is a downstream mediator of TGF-β and activin signaling. In particular, SMAD2 is a nonphosphorylated monomer in unstimulated cells. Upon ALK-4, -5, and -7 receptor activation, SMAD2 is phosphorylated and forms either homotrimers or heterotrimers with SMAD3 and SMAD4. These heterotrimers enter the nucleus and initiate gene transcription. Human SMAD2 is 467 amino acids (aa) in length. It contains one regulatory MH domain (aa 120-176) and a transactivation MH domain (aa 274-467). There are at least five utilized phosphorylation sites and one acetylation site at Lys19 that promotes transcriptional activity. There are four potential isoform variants. One shows a deletion of aa 79-108, while another contains the same deletion coupled to another deletion of aa 219-243. A third shows a deletion of aa 344-358, and a fourth is missing aa 221-225. Over aa 20-108, human SMAD2 shares 98% aa identity with mouse SMAD2.

PRODUCT SPECIFIC NOTICES

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