

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Smad2 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human Smad1, 3, 4, 5, 6, 7, or 8 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 376520
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Smad2 Lys20-Thr108 Accession # Q15796
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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.

Immunocytochemistry 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 is a 52 kDa TGF-β receptor-regulated member of the Smad family. It is expressed most highly in skeletal muscle, heart and placenta. Receptor binding of TGF-β causes C-terminal phosphorylation of Smads 2 and 3. Smad is released from cytoplasmic anchoring, complexes with Smad4 and accumulates in the nucleus. After regulating expression, Smad2 is dephosphorylated and recycled. The 467 aa human Smad2 shows only two aa differences with mouse Smad2. About 10% of Smad2 expressed as a short, high-activity isoform missing aa 80-108 within the MH1 domain.

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