

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Smad2 and Smad3 when dually phosphorylated at S465 and S467 in Western blots.
Source	Monoclonal Rabbit IgG Clone # 1074A
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Phosphopeptide containing the human Smad2 S465/S467 site Accession # NP_005892
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.

Western Blot 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

Smads are a family of intracellular proteins that transmit transforming growth factor beta (TGF-β) superfamily signals from the cell surface to the nucleus. The Smad family is divided into three subclasses: receptor regulated Smads, (Smads 1, 2, 3, 5 and 8); the common partner, (Smad4); and the inhibitory Smads, (Smads 6 and 7). The binding of TGF-β or activin to their cognate receptor induces phosphorylation of Smads 2 and 3. The activated Smads associate with the common-mediator subunit, Smad4, and the heteromeric complex translocates into the nucleus to initiate transcription. Smad3, also known as Mothers Against Decapentaplegic homolog 3 (MADH3), shares 83% amino acid identity with Smad2, also known as Mothers Against Decapentaplegic homolog 2 (MADH2). Human Smad2 has 99% identity to mouse and rat Smad2. Human Smad3 has 99% identity to mouse and rat Smad3.

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