Human Phospho-Smad2/3 (S465/S467) Antibody

Recombinant Monoclonal Rabbit IgG Clone # 1074A
Catalog Number: MAB8935

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Smad2 and Smad3 when dually phosphorylated at S465 and S467 in Western blots.
Source	Recombinant 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
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

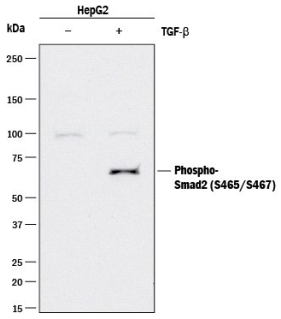
APPLICATIONS

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.*

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below

DATA

Western Blot



Detection of Human Phospho-Smad2/3 (S465/S467) by Western Blot. Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line untreated (-) or treated (+) with 10 ng/mL Recombinant Human TGF-β1 (Catalog # 240-B) for 30 minutes. PVDF membrane was probed with 2 µg/mL of Rabbit Anti-Human Phospho-Smad2/3 (S465/S467) Monoclonal Antibody (Catalog # MAB8935) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for Phospho-Smad2/3 (S465/S467) at approximately 68 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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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