**BACKGROUND**

Smad proteins, the mammalian homologs of the *Drosophila* mothers against dpp (Mad), function downstream of TGFβ receptor serine/threonine kinases and undergo serine phosphorylation in response to receptor activation. Following BMP (bone morphogenic protein) or TGFβ binding to the targeted surface receptors, Smad1 (also designated Madr1 or JVT-1) becomes phosphorylated at Ser 463 and Ser 465. BMP binding induces phosphorylation of Smad1, which enhances the binding of Smad1 to CBP to stimulate Smad1-dependent transcription.

**CHROMOSOMAL LOCATION**

Genetic locus: SMAD1 (human) mapping to 4q31.21; Smad1 (mouse) mapping to 8 C2.

**SOURCE**

p-Smad1/5/8 (Ser 463/Ser 465) is available as either goat (sc-12353) or rabbit (sc-12353-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing Ser 463 and Ser465 phosphorylated Smad1 of human origin.

**PRODUCT**

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-12353 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-12353 X, 200 µg/0.1 ml.

**APPLICATIONS**

p-Smad1/5/8 (Ser 463/Ser 465) is recommended for detection of Ser 463 and Ser 465 dually phosphorylated Smad1 of mouse and human origin, correspondingly phosphorylated Smad1 of rat, equine, canine, bovine, porcine and avian origin, and correspondingly phosphorylated Smad5 and Smad8 of mouse muscle, rat, human, equine, canine, bovine, porcine and avian origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:50-1:500). p-Smad1/5/8 (Ser 463/Ser 465) is also recommended for detection of correspondingly dually phosphorylated Smad1 and correspondingly phosphorylated Smad5 and Smad8 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Smad1 siRNA (h): sc-29483, Smad1 siRNA (m): sc-36507, Smad1 shRNA Plasmid (h): sc-29483-31, Smad1 shRNA Plasmid (m): sc-36507-31, Smad1 shRNA (h) Lentiviral Particles: sc-29483-V and Smad1 shRNA (m) Lentiviral Particles: sc-36507-V.

p-Smad1/5/8 (Ser 463/Ser 465) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Smad1/Smad5/Smad8: 52-56/52/52 kDa.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.