#12052 Store at -20°C

Smad2/3 Control Cell Extracts

☑ 100 µl
(10 western blots)

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For Research Use Only. Not For Use In Diagnostic Procedures.

Product Includes	Product #	Quantity
Smad2/3 Control Cell Extracts (HT1080 untreated)	26725	100 ul
Smad2/3 Control Cell Extracts (HT1080 + hTGF-beta3)	47986	100 ul

Storage: Supplied in SDS Sample Buffer: 62.5 mM Tris- HCl (pH 6.8 at 25°C), 2% w/v SDS, 10% glycerol, 50 mM DTT, 0.01% w/v bromophenol blue or phenol red. *Store at –20°C, or at –80°C for long-term storage.*

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

Background: Members of the Smad family of signal transduction molecules are components of a critical intracellular pathway that transmit TGF-β signals from the cell surface into the nucleus. Three distinct classes of Smads have been defined: the receptor-regulated Smads (R-Smads), which include Smad1, 2, 3, 5, and 8; the common-mediator Smad (co-Smad), Smad4; and the antagonistic or inhibitory Smads (I-Smads), Smad6 and 7 (1-5). Activated type I receptors associate with specific R-Smads and phosphorylate them on a conserved carboxy terminal SSXS motif. The phosphorylated R-Smad dissociates from the receptor and forms a heteromeric complex with the co-Smad (Smad4), allowing translocation of the complex to the nucleus. Once in the nucleus, Smads can target a variety of DNA binding proteins to regulate transcriptional responses (6-8).

Description: *Nonphosphorylated Smad2/3 Control Cell Extracts:* Total cell extracts from HT-1080 cells, serum-starved overnight to serve as a negative control. Supplied in SDS Sample Buffer.

Phosphorylated Smad2/3 Control Cell Extracts: Total cell extracts from HT-1080 cells, serum-starved overnight and treated with 10 ng/ml hTGF-β3 #8425 for 30 min to serve as a positive control. Supplied in SDS Sample Buffer.

Directions for Use: Boil for 3 minutes prior to use. Load 10 µl of phosphorylated and nonphosphorylated Smad2/3 Control Cell Extracts per lane.

Background References:

(1) Heldin, C.H. et al. (1997) *Nature* 390, 465-471.

(2) Attisano, L. and Wrana, J.L. (1998) *Curr. Opin. Cell Biol.* 10, 188-194.

(3) Derynck, R. et al. (1998) *Cell* 95, 737-740.

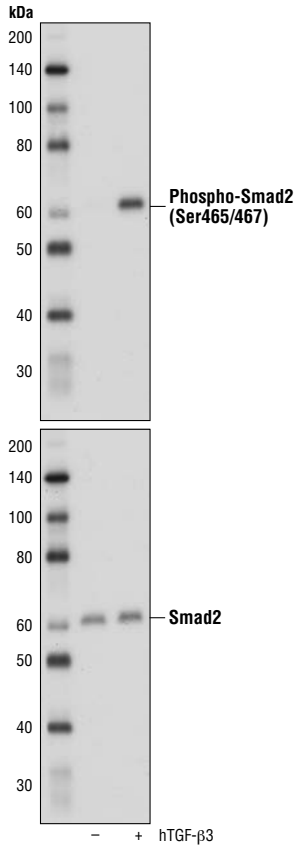
(4) Massague, J. (1998) *Annu. Rev. Biochem.* 67, 753-791.

(5) Whitman, M. (1998) *Genes Dev.* 12, 2445-2462.

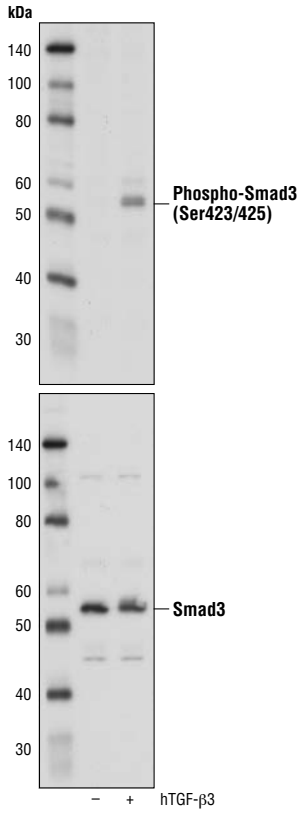
(6) Wu, G. et al. (2000) *Science* 287, 92-97.

(7) Attisano, L. and Wrana, J.L. (2002) *Science* 296, 1646-1647.

(8) Moustakas, A. et al. (2001) *J. Cell Sci.* 114, 4359-4369.



Western blot analysis of Smad2/3 Control Cell Extracts from HT-1080 cells, untreated (-) or treated with hTGF-β3 #8425 (10 ng/ml, 30 min; +), using Phospho-Smad2 (Ser465/467) (138D4) Rabbit mAb #3108 (upper) or Smad2 (86F7) Rabbit mAb #3122 (lower).



Western blot analysis of Smad2/3 Control Cell Extracts from HT-1080 cells, untreated (-) or treated with hTGF-β3 #8425 (10 ng/ml, 30 min; +), using Phospho-Smad3 (Ser423/425) (C25A9) Rabbit mAb #9520 (upper) or Smad3 (C67H9) Rabbit mAb #9523 (lower).

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.