Revision 2

Store at -20C

#12052

# SMAD2/3 Control Cell Extracts

Controls for 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 µl |
| Smad2/3 Control Cell Extracts (HT1080 +hTGF-beta3) | 47986 | 100 µl |

## 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.

## 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.*

## 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 9; 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-SMADs dissociate from the receptor and form a heteromeric complex with SMAD4, initiating translocation of the heteromeric SMAD complex to the nucleus. Once in the nucleus, SMADs recruit a variety of DNA binding proteins that function to regulate transcriptional activity (6-8).

## 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

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8. Moustakas, A. et al. (2001) *J Cell Sci* 114, 4359-69.

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