

Anti-Phospho-SMAD3 (Thr179)

Rabbit Polyclonal Antibody

Catalog # **S12-365BR**

Lot # B3216-79

Cited Applications

ELISA, WB

Ideal working dilutions for each application should be empirically determined by the investigator.

Specificity

Recognizes the human SMAD3 protein phosphorylated at Threonine 179

Cross Reactivity

Human

Host/Isotype/Clone#

Rabbit, IgG

Immunogen

The antibody was produced against synthesized peptide corresponding to an internal region of human SMAD3 protein surrounding Thr179

Formulation

0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 + 0.01% (w/v) Sodium Azide

Stability

1yr at -20°C from date of shipment

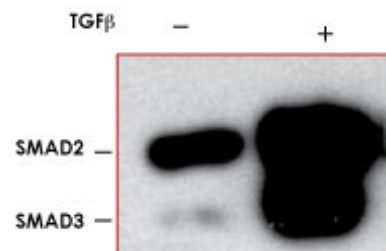
Scientific Background

SMAD3 is a direct mediator of transcriptional activation by the TGFβ receptor. The activity of SMAD3 is regulated by the TGFβ receptors, and SMAD3 is phosphorylated and associated with the ligand-bound receptor complex. TGFβ stimulation leads to phosphorylation and activation of SMAD3, which form a complex with SMAD4 that accumulate in the nucleus and regulate transcription of target genes such as CDK inhibitor (1). SMAD3 containing a C-terminal truncation acts as a dominant-negative inhibitor of the normal TGFβ response. SMAD3 is a major physiologic substrate of the G1 cyclin-dependent kinases CDK4 and CDK2 (2).

References:

1. Inman, G. J. et al: Nucleocytoplasmic shuttling of Smads 2, 3, and 4 permits sensing of TGF-beta receptor activity. *Molec. Cell* 10: 283-294, 2002.
2. Matsuura, I. et al: Cyclin-dependent kinases regulate the antiproliferative function of Smads. *Nature* 430: 226-231, 2004.

Sample Data



NMuMG mouse mammary epithelial cells were probed for the activation of Smad3 by detecting phosphorylation of threonine 179 using Anti-Phospho-SMAD3 (Thr179) antibody. The cells were either untreated or treated with TGF-beta. The antibody detects only Smad3 in stimulated cells.

Anti-Phospho-SMAD3 (Thr179)

Rabbit Polyclonal Antibody

Catalog #	S12-365BR
Lot #	B3216-79
Purification	Immunoaffinity chromatography
Stability	1yr at -20°C from date of shipment
Storage & Shipping	Store product at -20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

To place your order, please contact us by phone 1-(604)-232-4600, fax 1-604-232-4601 or by email: orders@signalchem.com
www.signalchem.com

FOR IN VITRO RESEARCH PURPOSES ONLY. NOT INTENDED FOR USE IN HUMAN OR ANIMALS.