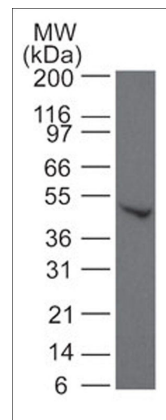


## Background

SMADs are members of the MAD-related family of molecules. MAD-related proteins are a family of intracellular proteins that are essential components in the signaling pathways of the serine/threonine kinase receptors of the transforming growth factor beta superfamily. SMADs can be divided into receptor-regulated SMADs (R-SMADs: SMAD1, 2, 3, 5 and 8), common-mediator SMAD (co-SMAD: SMAD4), and inhibitory SMADs (I-SMADs: SMAD6 and 7). Briefly, activated type I receptors associate with specific R-Smads and phosphorylate them on a conserved SSXS motif at the carboxy-terminus of the proteins. The phosphorylated R-Smad dissociates from the receptor and forms a heteromeric complex with the co-Smad, Smad4, and together the complex moves to the nucleus. Once in the nucleus, Smads can target a variety of DNA binding proteins to regulate transcriptional responses.



Western blot analysis of SMAD6 in human Jurkat cells. The blot was probed with rabbit polyclonal SMAD6 antibody (SP4881) at 1:250.

## Background References

Topper, J.N. et al. (1997) Natl Acad Sci. U.S.A. 94(17):9314.  
Attisano, L. & Wrana, J.L. (1998) Curr Opin Cell Biol. 10:188.

## Applications

WB 1:500  
IHC 1:100

## Species Reactivity

Hu, Rt, Ms

## Specificity

This antibody detects SMAD6 at 53 kDa\* on SDS-PAGE immunoblots of human Jurkat cells and mouse C2C12. The antibody can be used for western blot and immunohistochemistry.

End user should determine optimal dilution for their particular applications and experiments.  
Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

\*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

## Immunogen

Uniprot ID: O43541

This antibody was developed against synthetic peptides corresponding to amino acids 85-99 (RAGGPPRPMSEPGAG) and amino acids 372-388 (NLEQRSESVRRTRSKIG) of human SMAD6 (GenBank Accession No. AAH12986.1). These peptide sequences are specific to SMAD6, and have high homology to SMAD6 in multiple species.

## Buffer and Storage

Rabbit polyclonal antibody purified with protein G chromatography is supplied in 100µl phosphate-buffered saline with 0.05% BSA, and 0.05% sodium azide. Store at 4°C. For long term storage, store at -20°C.

## Related Products

AK6060 Actin & Tubulin Antibody Sampler Kit  
CK6120 β-Catenin Phospho-Regulation Antibody Sampler Kit  
MK6050 MAP Kinase Activation Antibody Sampler Kit  
SP4861 SMAD4 Rabbit Polyclonal  
SP4901 SMAD7 (N-terminal region) Rabbit Polyclonal

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