

Human SMAD4 Knockdown Cell Lysate

Cat. No. SMAD4-295HKCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	WB-validated SMAD4 Knockdown HeLa Cell Lysate
Species	Human
Source	HeLa
Description	<p>This gene encodes a member of the Smad family of signal transduction proteins. Smad proteins are phosphorylated and activated by transmembrane serine-threonine receptor kinases in response to transforming growth factor (TGF)-beta signaling. The product of this gene forms homomeric complexes and heteromeric complexes with other activated Smad proteins, which then accumulate in the nucleus and regulate the transcription of target genes. This protein binds to DNA and recognizes an 8-bp palindromic sequence (GTCTAGAC) called the Smad-binding element (SBE). The protein acts as a tumor suppressor and inhibits epithelial cell proliferation. It may also have an inhibitory effect on tumors by reducing angiogenesis and increasing blood vessel hyperpermeability. The encoded protein is a crucial component of the bone morphogenetic protein signaling pathway. The Smad proteins are subject to complex regulation by post-translational modifications. Mutations or deletions in this gene have been shown to result in pancreatic cancer, juvenile polyposis syndrome, and hereditary hemorrhagic telangiectasia syndrome.</p>
Form	Cell-Tissue Lysis buffer
Molecular Mass	60 kDa

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Notes	Instruction of use: This knockdown cell lysate should be paired with wild-type HeLa cell lysate for use. For Western blotting, we recommend running wild-type and knockdown lysates on the same gel, and loading each well with equal volume and equal amount of total proteins.
Storage	Store at -20 centigrade for two years.
Concentration	Lot-specific
Shipping	Blue Ice
Components	1 vial of 100 µg WT HeLa cell lysate 1 vial of 100 µg SMAD4 KD HeLa cell lysate
Protein Families	Druggable Genome, Transcription Factors
Protein Pathways	Adherens junction, Cell cycle, Chronic myeloid leukemia, Colorectal cancer, Pancreatic cancer, Pathways in cancer, TGF-beta signaling pathway, Wnt signaling pathway
Lysate QC	RT-qPCR; Western Blotting (WB)
GENE INFORMATION	
Gene Name	SMAD4 SMAD family member 4 [Homo sapiens (human)]
Official Symbol	SMAD4
Synonyms	SMAD4; SMAD family member 4; MAD, mothers against decapentaplegic homolog 4 (Drosophila), MADH4, SMAD, mothers against DPP homolog 4 (Drosophila); mothers against decapentaplegic homolog 4; DPC4; MAD homolog 4; SMAD, mothers against DPP homolog 4; deleted in pancreatic carcinoma locus 4; deletion target in pancreatic

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carcinoma 4; mothers against decapentaplegic, Drosophila, homolog of, 4; JIP;
MADH4; MYHRS;

Gene ID 4089

mRNA Refseq NM_005359

Protein Refseq NP_005350

MIM 600993

UniProt ID Q13485

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