

SMAD4 Knockout 293T Cell Lysate, Homozygous

Catalog No.: RM02576

Basic Information

Catalog No.

RM02576

Category

Cell Lysate

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

SMAD4

Species

Human

Gene ID

4089

Swiss Prot

Q13485

Synonyms

DPC4; JIP; MADH4; MYHRS

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Background

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 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 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. [provided by RefSeq, Oct 2009]

Product Information

Description

SMAD4 Knockout 293T Cell Line is engineered from 293T cell line with Gene-Editing technology.

Allele-1:140bp deletion in exon1; Allele-2:141bp deletion in exon1

Mammalian cells such as human, rat and mouse cells are normally diploid with two alleles. Homozygote: both alleles were knocked out, mRNA has no signal, no expression of proteins. Heterozygote: only one allele was knocked out, the mRNA transcript levels was decreased compared to wild type, and the protein expression levels was also lower than that of the wild type.

Packaging

1 vial parental cell Lysate and 1 vial knockout cell Lysate

Shipping Conditions

4°C

Amount

50μL, 2μg/μL.

Storage

Lysate is stable for 12 months when stored at -20°C. Minimizing freeze-thaw cycles.

Protocol

To be used as WB control. Lysate is supplied in 1× SDS sample buffer (2% SDS, 60 mM Tris-HCl pH 6.8, 10% Glycerol, 0.02% Bromophenol blue, 60 mM beta-mercaptoethanol). Lysate should be boiled for 3 - 5 minutes before loading onto gel.

Sequencing data

WT GTGCCATAGACAAG*****AGAACATTGGATGG
Mut GTGCCATAGACAAG***Deletion***AGAACATTGGATGG
Allele-1: 140bp deletion in exon1

WT ATGTGCCATAGACA*****GAGAACATTGGATG
Mut ATGTGCCATAGACA***Deletion***GAGAACATTGGATG
Allele-2: 141bp deletion in exon1

Genome sequence analysis of PCR products from parental (WT) and SMAD4 knockout (KO) 293T cells, using sanger sequencing.