# **Human SMAD2 Knockdown Cell Line (WB-Validated)**



**Catalog #: C7522** 

#### **Aliases**

SMAD2; SMAD Family Member 2; JV18-1; MADR2; MADH2; Mothers Against Decapentaplegic Homolog 2; MAD Homolog 2; HMAD-2; HSMAD2; MAD, Mothers Against Decapentaplegic Homolog 2 (Drosophila); SMAD, Mothers Against DPP Homolog 2 (Drosophila); SMAD, Mothers Against DPP Homolog 2; Sma- And Mad-Related Protein 2; Mothers Against DPP Homolog 2; Mother Against DPP Homolog 2; Mad-Related Protein 2; SMAD 2; CHTD8; Smad2; JV18; LDS6

# **Background**

Gene Name: SMAD2 NCBI Gene Entry: 4087

## **Storage**

Store at liquid nitrogen for 1 year.

## **Kit Components**

- 1. Human SMAD2 Knockdown Cell Line (Wb-Validated)
- 2. Wild-type cell line

#### **Parental Cell Line**

Human cell line supplied by the client

### **Validation Methods**

RT-qPCR, Western blotting (WB)

## **Shipping**

Shipped on Dry Ice.

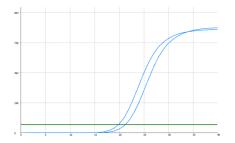
### **Instructions For Use**

This knockdown cell line should be paired with wild-type cell line for use.

**Note:** This product is for research use only.

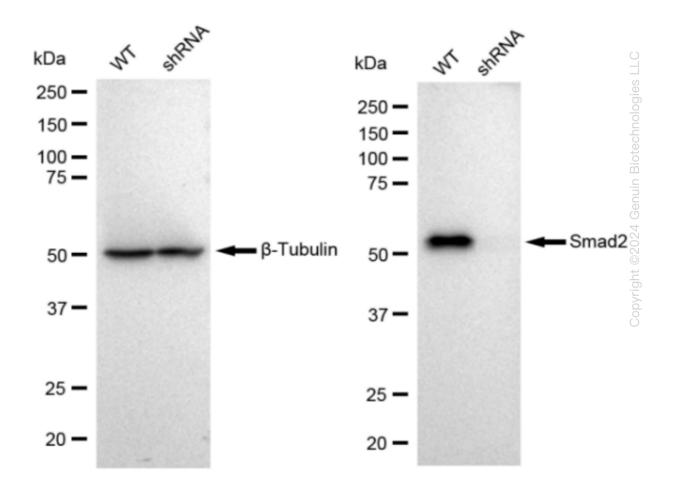
#### Validation Data

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Genotype	Ct Value
Wild-Type	19.57
Knock-Down	21.06
$\Delta Ct (Ct_{KD}-Ct_{WT})$	1.49
% mRNA Reduction	<b>↓</b> 64%

RT-qPCR analysis. HT-1080 cells were infected with SMAD2-specific shRNA lentiviral particles, total RNA was extracted from wild-type and knockdown cells, RT-qPCR was performed using gene-specific primers.  $\Delta$ Ct (CtKD-CtWT) was used to calculate mRNA reduction (%) between wild-type and knockdown cells using the following formula:  $(1-1/2\Delta$ Ct) x 100%.



Western blotting analysis. SMAD2 protein expression in wild-type (WT) and shRNA knockdown (KD) HT-1080 cells was detected using Western blotting. Beta-TUBULINserved as a loading

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control. The blots were incubated with primary antibodies (Cat#69512, 1:5,000) against SMAD2 and Beta-TUBULIN, respectively, followed by incubating with HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000). Images were developed using FeQ<sup>TM</sup> ECL Substrate Kit (Cat#226).