

# Human TSC2 Knockdown Cell Line (WB-Validated)



**Catalog #: C7712**

## Aliases

TSC2; Tuberin; PPP1R160; TSC4; LAM; Protein Phosphatase 1, Regulatory Subunit 160; Tuberous Sclerosis 2 Protein; Tuberous Sclerosis 2

## Background

Gene Name: TSC2

NCBI Gene Entry: [7249](#)

## Storage

Store at liquid nitrogen for 1 year.

## Kit Components

1. Human TSC2 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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### SUPPORT

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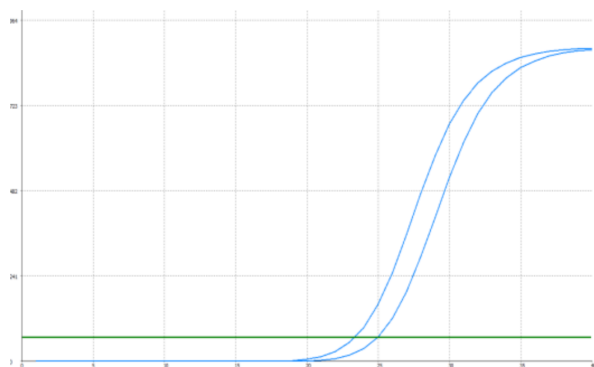
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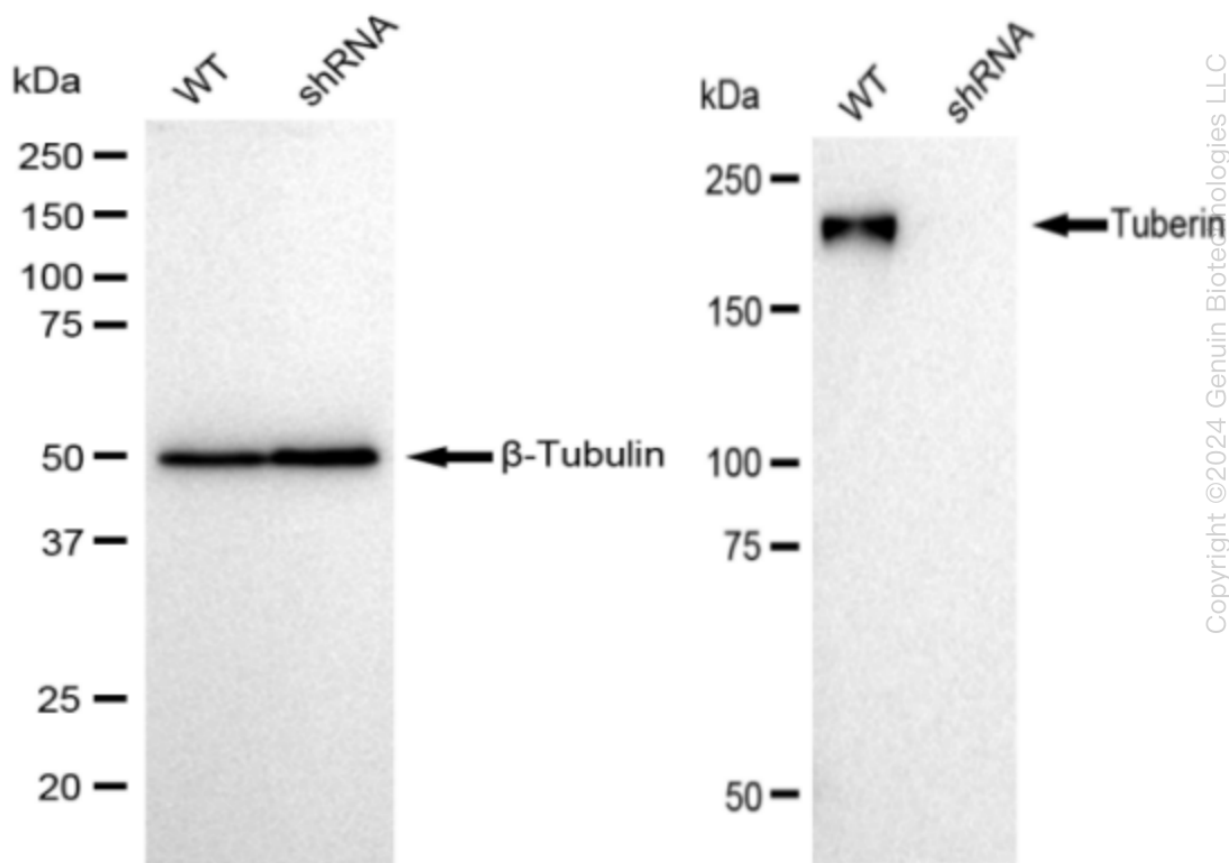
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Genotype	Ct Value
Wild-Type	23.23
Knock-Down	24.81
$\Delta Ct$ ( $Ct_{KD} - Ct_{WT}$ )	1.58
% mRNA Reduction	↓ 67%

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RT-qPCR analysis. HeLa cells were infected with TSC2-specific shRNA lentiviral particles, total RNA was extracted from wild-type and knockdown cells, RT-qPCR was performed using gene-specific primers.  $\Delta Ct$  ( $Ct_{KD} - Ct_{WT}$ ) was used to calculate mRNA reduction (%) between wild-type and knockdown cells using the following formula:  $(1 - 1/2^{\Delta Ct}) \times 100\%$ .



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Western blotting analysis. TSC2 protein expression in wild-type (WT) and shRNA knockdown (KD) HT-1080 cells was detected using Western blotting.  $\beta$ -Tubulin served as a loading control.

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## **Human TSC2 Knockdown Cell Line (WB-Validated)**

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The blots were incubated with primary antibodies (Cat#69712, 1:5,000) against TSC2 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™ ECL Substrate Kit (Cat#226).

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