

# Human RAD51 Knockdown Cell Line (WB-Validated)



**Catalog #: C61223**

## Aliases

RAD51; RAD51 Recombinase; RAD51A; BRCC5; FANCR; RECA; BRCA1/BRCA2-Containing Complex, Subunit 5; DNA Repair Protein RAD51 Homolog 1; RAD51 Homolog A; HsT16930; HsRad51; HRAD51; RAD51 Homolog (RecA Homolog, E. Coli) (S. Cerevisiae); RAD51 (S. Cerevisiae) Homolog (E Coli RecA Homolog); RAD51 Homolog (S. Cerevisiae); RecA, E. Coli, Homolog Of; Recombination Protein A; RecA-Like Protein; HST16930; HSRAD51; HsRAD51; MRMV2

## Background

Gene Name: RAD51

NCBI Gene Entry: [5888](#)

## Storage

Store at liquid nitrogen for 1 year.

## Kit Components

1. Human RAD51 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

---

### SUPPORT

SUPPORT@GENUINBIOTECH.COM  
TEL: +1-540-855-7041

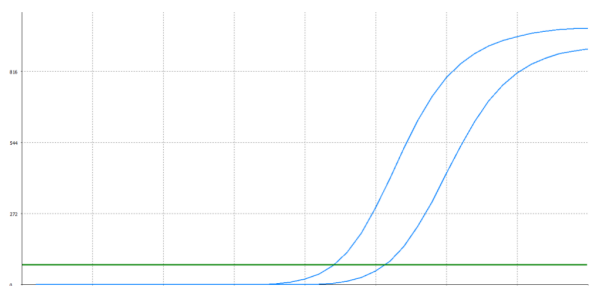
### ORDERS

SALES@GENUINBIOTECH.COM  
FAX: +1-540-855-7041

[WWW.GENUINBIOTECH.COM](http://WWW.GENUINBIOTECH.COM)

## Human RAD51 Knockdown Cell Line (WB-Validated)

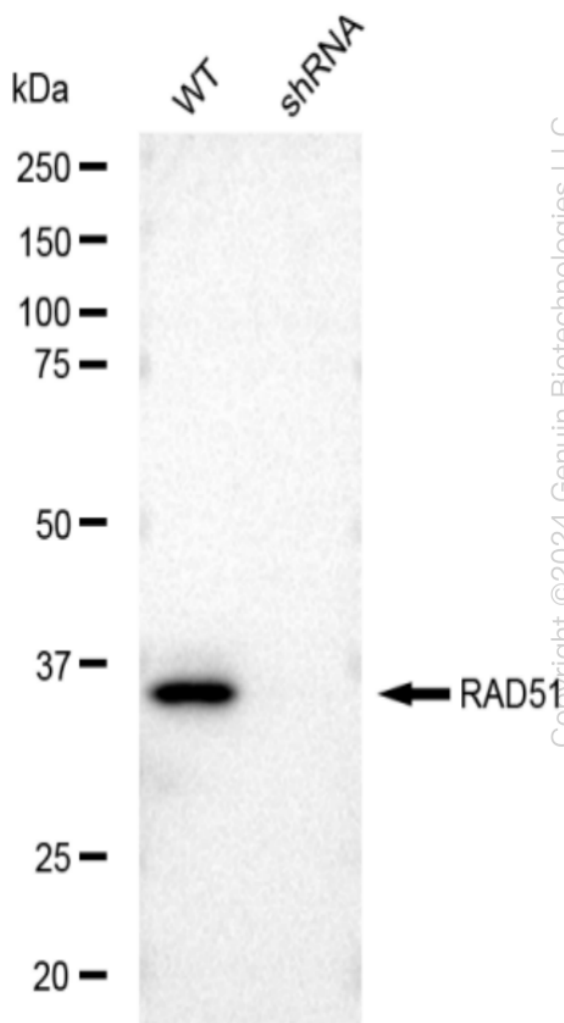
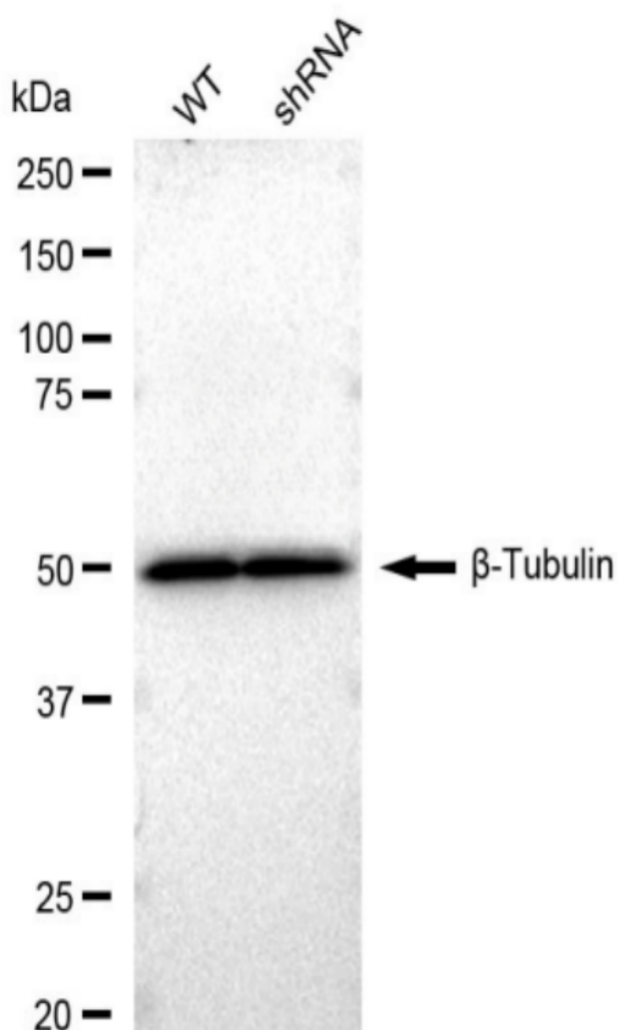
PAGE 2



Genotype	Ct Value
Wild-Type	21.91
Knock-Down	25.33
$\Delta Ct (Ct_{KD} - Ct_{WT})$	3.42
% mRNA Reduction	↓ 91%

Copyright ©2024 Genuin Biotechnologies LLC

RT-qPCR analysis. HeLa cells were infected with RAD51-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:  $(1 - 1/2^{\Delta Ct}) \times 100\%$ .



Copyright ©2024 Genuin Biotechnologies LLC

### SUPPORT

SUPPORT@GENUINBIOTECH.COM  
TEL: +1-540-855-7041

### ORDERS

SALES@GENUINBIOTECH.COM  
FAX: +1-540-855-7041

WWW.GENUINBIOTECH.COM

Western blotting analysis. RAD51 protein expression in wild-type (WT) and shRNA knockdown (KD) HeLa cells was detected using Western blotting.  $\beta$ -Tubulin served as a loading control. The blots were incubated with primary antibodies (Cat#61223, 1:5,000) against RAD51 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).