

# Human HK1 Knockdown Cell Line (WB-Validated)



**Catalog #: C3410**

## Aliases

HK1; Brain Form Hexokinase; Hexokinase Type I; Hexokinase-1; Hexokinase-A; EC 2.7.1.1; Neuropathy, Hereditary Motor And Sensory, Russe Type; Glycolytic Enzyme; Hexokinase IR; Hexokinase; EC 2.7.1; NEDVIBA; HK1-Ta; HK1-Tb; HK1-Tc; HMSNR; HXK1; NMSR; RP79; HK I; HKD; HKI; HK

## Background

Gene Name: HK1

NCBI Gene Entry: 3098

## Storage

Store at liquid nitrogen for 1 year.

## Kit Components

1. Human HK1 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

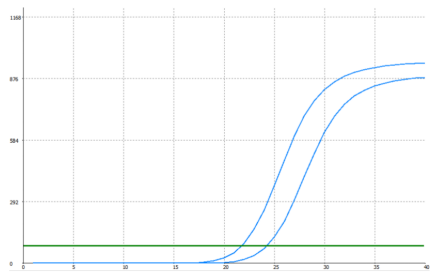
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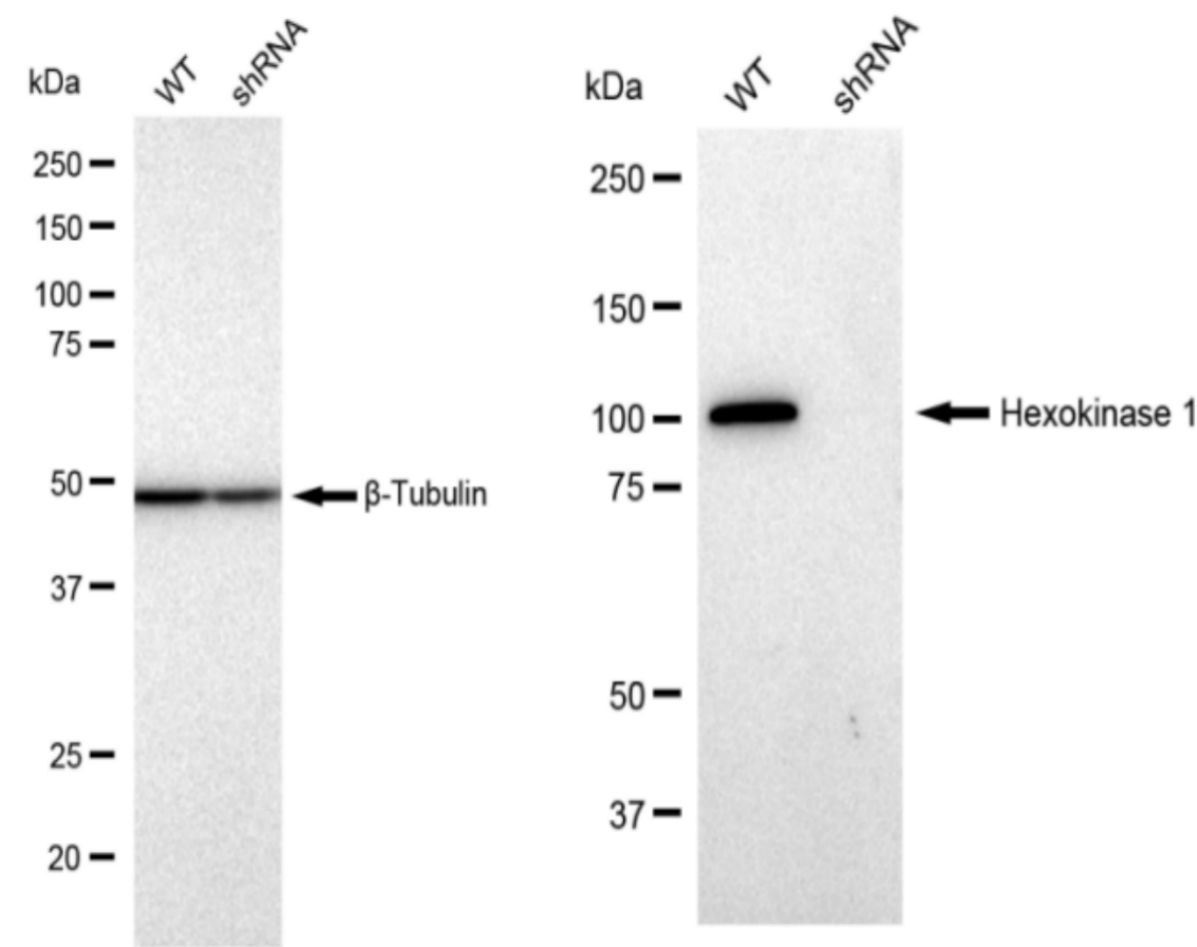
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Genotype	Ct Value
Wild-Type	21.4
Knock-Down	23.77
$\Delta Ct (Ct_{KD}-Ct_{WT})$	2.37
% mRNA Reduction	↓ 81%

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RT-qPCR analysis. HeLa cells were infected with HK1-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. HK1 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

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blots were incubated with primary antibodies (Cat#69410, 1:5,000) against HK1 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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