

Human MTHFR Knockdown Cell Line (WB-Validated)



Catalog #: C65213

Aliases

MTHFR; Methylenetetrahydrofolate Reductase; 5,10-Methylenetetrahydrofolate Reductase (NADPH); Methylenetetrahydrofolate Reductase (NAD(P)H); Methylenetetrahydrofolate Reductase (NADPH); EC 1.5.1.53; EC 1.5.1.20

Background

Gene Name: MTHFR
NCBI Gene Entry: [4524](#)

Storage

Store at liquid nitrogen for 1 year.

Kit Components

1. Human MTHFR 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

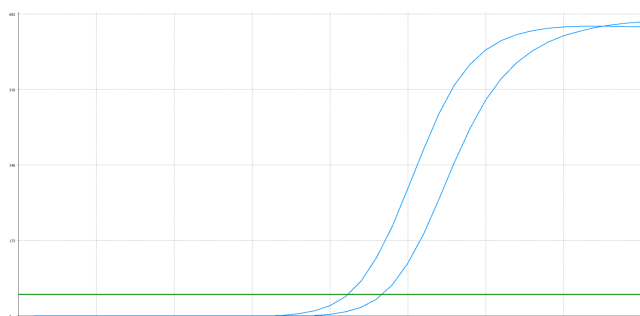
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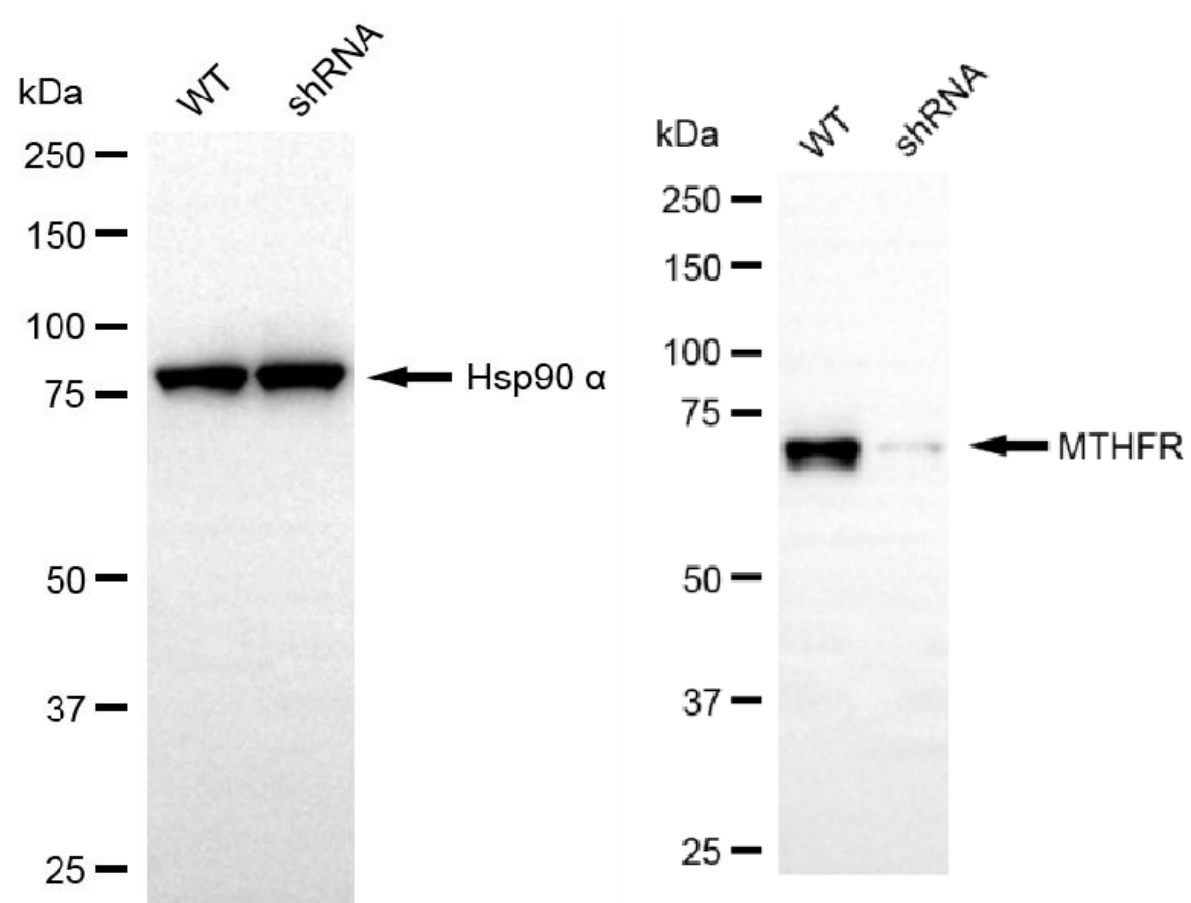
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Genotype	Ct Value
Wild-Type	21.07
Knock-Down	23.28
$\Delta Ct (Ct_{KD} - Ct_{WT})$	1.64
% mRNA Reduction	↓ 68%

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RT-qPCR analysis. HeLa cells were infected with MTHFR-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. MTHFR protein expression in wild-type (WT) and shRNA knockdown (KD) HeLa cells was detected using Western blotting. Hsp90 α served as a loading control. The blots were incubated with primary antibodies against MTHFR and Hsp90 α , respectively, followed by incubating with HRP-conjugated goat anti-rabbit secondary antibody. Images were developed using FeQ™ ECL Substrate Kit.