

Human ALDH4A1 Knockdown Cell Line (WB-Validated)



Catalog #: C61263

Aliases

ALDH4A1; Aldehyde Dehydrogenase 4 Family Member A1; L-Glutamate Gamma-Semialdehyde Dehydrogenase; P5CDh; ALDH4; Delta-1-Pyrroline-5-Carboxylate Dehydrogenase, Mitochondrial; Aldehyde Dehydrogenase Family 4 Member A1; P5C Dehydrogenase; Mitochondrial Delta-1-Pyrroline 5-Carboxylate Dehydrogenase; Delta-1-Pyrroline-5-Carboxylate Dehydrogenase; Aldehyde Dehydrogenase 4 Family, Member A1; Epididymis Secretory Sperm Binding Protein; EC 1.2.1.88; EC 1.5.1.12; P5CDH; P5CD

Background

Gene Name: ALDH4A1

NCBI Gene Entry: [8659](#)

Storage

Store at liquid nitrogen for 1 year.

Kit Components

1. Human ALDH4A1 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

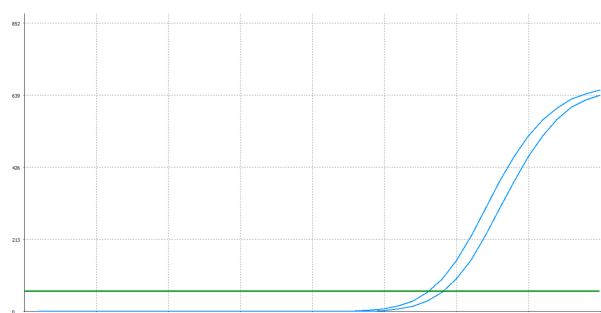
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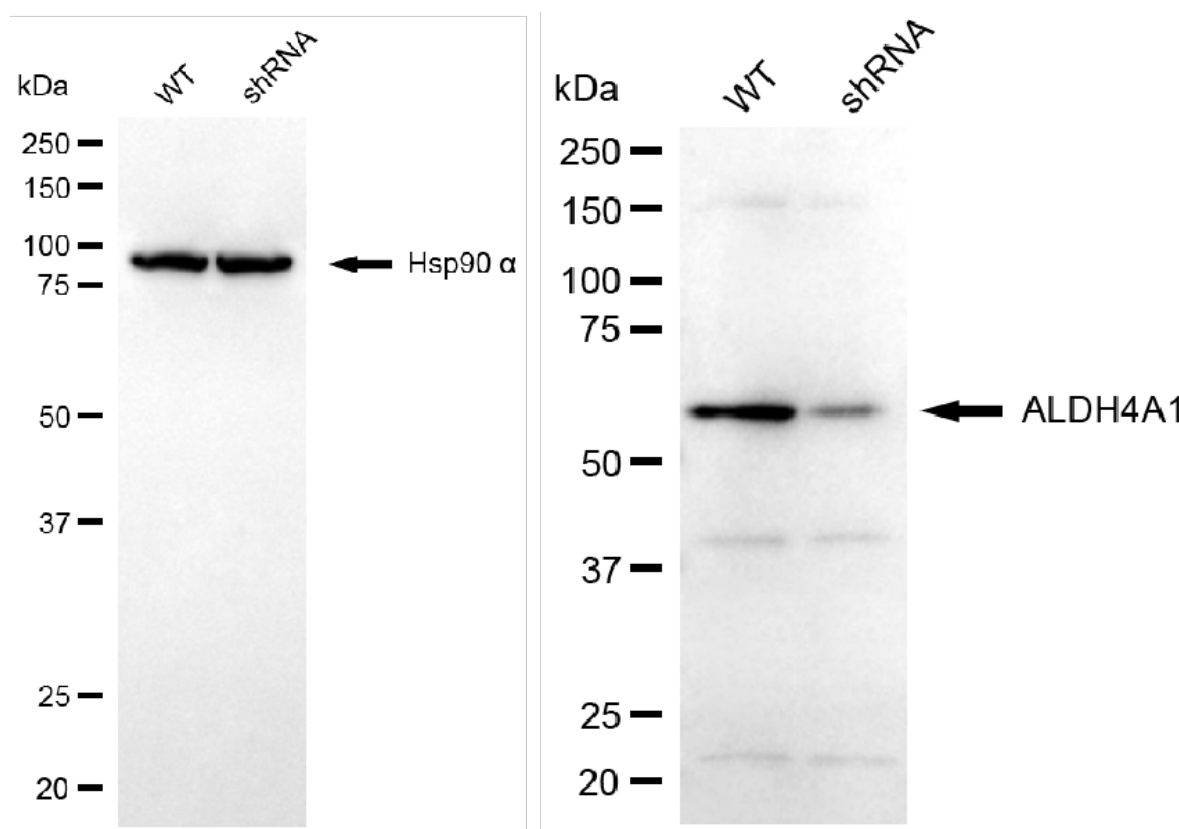
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Genotype	Ct Value
Wild-Type	27.62
Knock-Down	28.57
$\Delta Ct (Ct_{KD} - Ct_{WT})$	0.95
% mRNA Reduction	↓ 48%

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RT-qPCR analysis. HeLa cells were infected with ALDH4A1-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. ALDH4A1 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 ALDH4A1 and Hsp90 α , respectively, followed by incubating with HRP-conjugated goat anti-mouse secondary antibody. Images were developed using FeQ™ ECL Substrate Kit.