Human GCH1 Knockdown Cell Line (WB-Validated)

Catalog #: C64824

Aliases

GCH1; GTP Cyclohydrolase 1; GTP Cyclohydrolase I; GTPCH1; DYT5a; DYT5; GCH; Dystonia 14; EC 3.5.4.16; GTP-CH-I; DYT14; Guanosine 5'-Triphosphate Cyclohydrolase I; Dopa-Responsive Dystonia; GTP-CH-1; HPABH4B

Background

Gene Name: GCH1
NCBI Gene Entry: 2643

Storage

Store at liquid nitrogen for 1 year.

Kit Components

1. Human GCH1 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.

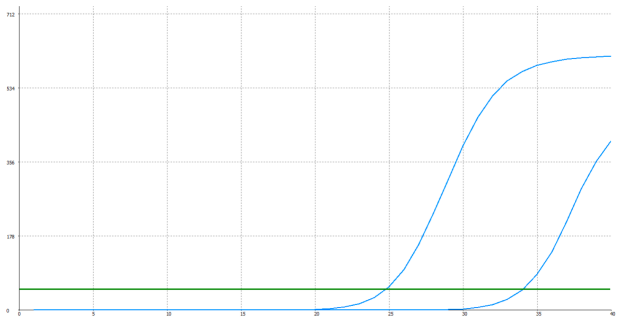
Instructions For Use

This knockdown cell line should be paired with wild-type cell line for use.

Note: This product is for research use only.

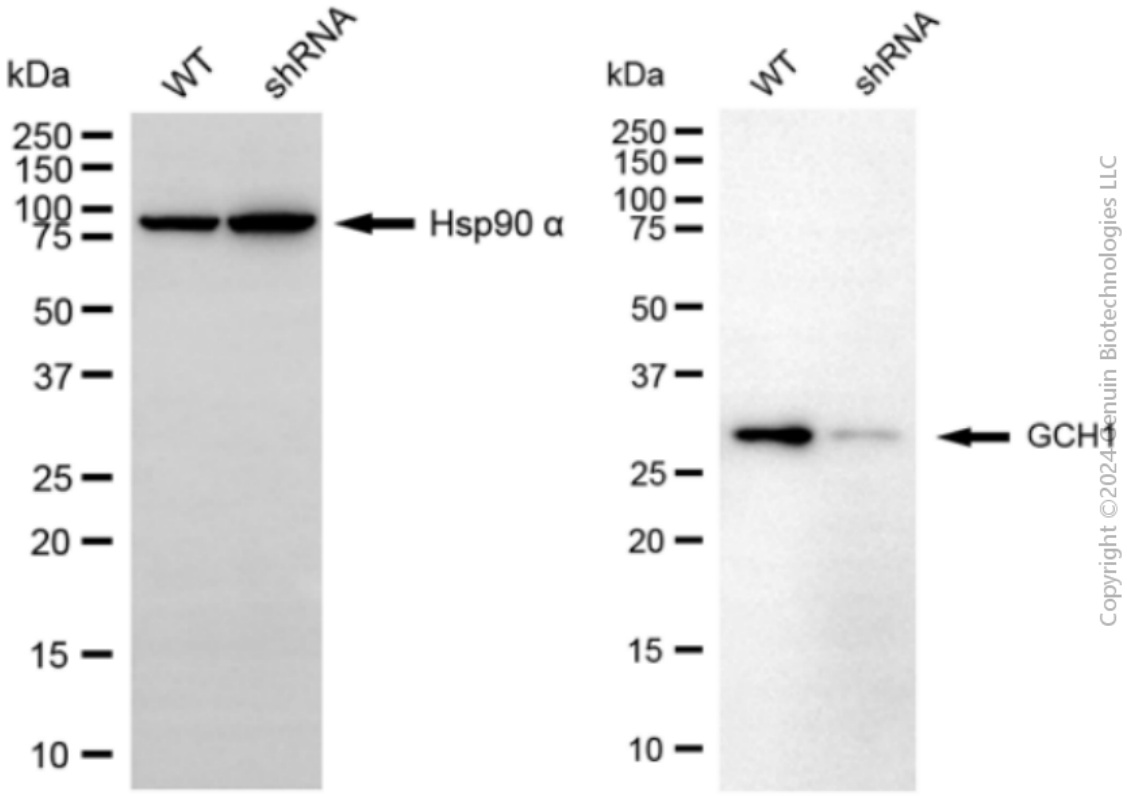
Validation Data

Human GCH1 Knockdown Cell Line (WB-Validated)



Genotype	Ct Value
Wild-Type	24.51
Knock-Down	33.13
ΔCt (Ct_{KD}-Ct_{WT})	8.62
% mRNA Reduction	⬇99.7%

RT-qPCR analysis. HeLa cells were infected with GCH1-specific shRNA lentiviral particles, total RNA was extracted from wild-type and knockdown cells, RT-qPCR was performed using gene-specific primers. ΔCt (CtKD-CtWT) was used to calculate mRNA reduction (%) between wild-type and knockdown cells using the following formula: (1-1/2ΔCt) x 100%.



Western blotting analysis. GCH1 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 GCH1 and Hsp90 α, respectively, followed by incubating with HRP-conjugated goat anti-mouse secondary antibody. Images were developed using FeQ™ ECL Substrate Kit.