

SureSilencing™ SilenciX Knockout Cell Lines

HDAC1 HeLa SilenciX
Catalog # SLX-00064

Description

Lot #	081217A
Source	Adherent HeLa cells silenced for HDAC1 (Accession Number: NM_004964)
Formulation	Cryo-preserved at passage 9

Target Background

Targeted Gene	HDAC1
Source	Homo sapiens
Gene Name	Histone deacetylase 1, HD1; RPD3L1, Reduced Potassium Dependency 3, Yeast, Homolog-like 1; RPD3-Like 1; Reduced Potassium Dependency, Yeast Homolog-like 1
Gene Accession Number	NM_004964
Protein Accession Number	Q13547
Protein Name	Histone Deacetylase 1
Protein Function	Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Histone deacetylases act via the formation of large multiprotein complexes.

Quality Control

Contamination Analysis

Tested free of bacterial contamination in antibiotic-free medium and tested free of mycoplasma with MycoAlert Mycoplasma Detection Kit (Lonza Inc, USA): Catalog Number LT07-318)

Silencing Validation by real-time PCR:

Cell line	HDAC1 HeLa SilenciX
HDAC1 Silencing (%)	94%

- Validation of HDAC1 knock-down by real-time PCR in HDAC1 HeLa SilenciX cells, in comparison with Control HeLa SilenciX cells, using the HDAC1 primer set PPH01735E, GAPDH primer set PPH00150E, and Actin primer set PPH00073E (SABiosciences).

Relative PCR quantitation allows direct comparison of gene expression levels for housekeeping genes and the target gene of interest (GOI) in control HeLa SilenciX cells and GOI HeLa SilenciX cells.

The difference between the C_t values (ΔC_t) for each gene is calculated:

$$\Delta C_t (\text{GOI HeLa SilenciX}) = C_t (\text{GOI HeLa SilenciX}) - C_t (\text{Housekeeping gene})$$
$$\Delta C_t (\text{control HeLa SilenciX}) = C_t (\text{control HeLa SilenciX}) - C_t (\text{Housekeeping gene})$$

The difference in ΔC_t values ($\Delta\Delta C_t$) is determined between the control HeLa SilenciX cells and the GOI HeLa SilenciX cells.

$$\Delta\Delta C_t = \Delta C_t (\text{GOI HeLa SilenciX}) - \Delta C_t (\text{control HeLa SilenciX})$$

The fold change in gene expression is obtained as follows:

$$\text{Fold Change} = 2^{-[\Delta C_t (\text{GOI HeLa SilenciX}) - \Delta C_t (\text{control HeLa SilenciX})]}$$

The level of GOI expression in control HeLa SilenciX is set to 1 and represents 100% GOI expression in the control HeLa SilenciX cell line. The level of silencing is expressed as percentage of GOI silencing:

$$\text{Percentage of GOI silencing} = 100 - (\text{fold change} \times 100)$$

Storage Conditions

SureSilencing SilenciX Knockout cells are shipped on dry ice. For efficient and long-term storage, store this cell line properly in liquid nitrogen.

Usage Restrictions

This product is intended for research purposes only and is not intended for diagnostic and clinical purposes or for Human applications. You are responsible for its safe storage, handling, and use.

SABiosciences and tebu-bio are not liable for any damages or injuries arising from receipt and/or use of this product.

It is strictly forbidden to:

- make the SilenciX cell lines available to any third party,
- transfer, sell, or distribute the silenced and the control cell lines, out of the laboratory,
- sub-license the silenced and the control cell lines,
- develop new cell lines using the SilenciX know-how,
- offer commercial services on SilenciX cell lines (silenced and control cell lines).

Technical Service

For more information about the use of SureSilencing SilenciX Knockout cell lines, please contact technical support at: Support@SABiosciences.com

MORE INFORMATION AT www.SABiosciences.com

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