

SureSilencing™ SilenciX Knockout Cell Lines

TNFR1 HeLa SilenciX

Catalog # SLX-00063

Description

| | |
|--------------------|---|
| Lot # | 081217A |
| Source | Adherent HeLa cells silenced for TNFR1 (Accession Number: NM_001065) |
| Formulation | Cryo-preserved at passage 8 |

Target Background

| | |
|---------------------------------|--|
| Targeted Gene | TNFR1 |
| Source | Homo sapiens |
| Gene Name | TNFRSF1A, TNFR, 55-KD; TNFR, 60-KD; Tumor Necrosis Factor Receptor 1; Tumor Necrosis factor-Alpha Receptor; Tumor Necrosis Factor Receptor Superfamily, member 1A |
| Gene Accession Number | NM_001065 |
| Protein Accession Number | P19438 |
| Protein Name | Tumor necrosis factor receptor superfamily member 1A precursor |
| Protein Function | Receptor for TNFSF2/TNF-alpha and homo-trimeric TNFSF1/lymphotoxin-alpha. The adapter molecule FADD recruits caspase-8 to the activated receptor. The resulting death-inducing signalling complex (DISC) performs caspase-8 proteolytic activation which initiates the subsequent cascade of caspases (aspartate-specific cysteine proteases) mediating apoptosis. Contributes to the induction of non-cytocidal TNF effects including anti-viral state and activation of the acid sphingomyelinase. |

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 | TNFR1 HeLa SilenciX |
|---------------------|---------------------|
| TNFR1 Silencing (%) | 84% |

- Validation of TNFR1 knock-down by real-time PCR in TNFR1 HeLa SilenciX cells, in comparison with Control HeLa SilenciX cells, using the TNFR-1 primer set PPH00346A, 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:

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

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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