

Catalog #	Aliquot Size
Y84-911-05	3 x 5 nmol
Y84-911-20	3 x 20 nmol
Y84-911-50	3 x 50 nmol

14-3-3 theta siRNA Set I

siRNA duplexes targeted against three exon regions

Catalog # Y84-911

Lot # Z2013-4

Specificity

14-3-3 theta siRNAs are designed to specifically knock-down human 14-3-3 theta expression.

Product Description

14-3-3 theta siRNA is a pool of three individual synthetic siRNA duplexes designed to knock-down human 14-3-3 theta mRNA expression. Each siRNA is 19-25 bases in length. The gene accession number is [NM_006826](#).

Gene Aliases

14-3-3 theta, YWHAQ, 1C5, HS1, 14-3-3

Storage and Stability

The lyophilized powder is stable for at least 4 weeks at room temperature. It is recommended that the lyophilized and resuspended siRNAs are stored at or below -20°C. After resuspension, siRNA stock solutions ≥2 μM can undergo up to 50 freeze-thaw cycles without significant degradation. For long-term storage, it is recommended that the siRNA is stored at -70°C. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

Scientific Background

14-3-3 \square (also known as tyrosine 3-monooxygenase / tryptophan 5-monooxygenase activation protein, theta polypeptide) is a member of the 14-3-3 family of proteins which mediate signal transduction by binding to phosphoserine-containing proteins. Through interaction with ASK1, c-jun NH-terminal kinase, and p38 mitogen-activated protein kinase (MAPK), 14-3-3 \square plays an important role in controlling apoptosis (1). Induced expression of 14-3-3 \square protein has been reported in patients with amyotrophic lateral sclerosis. Additionally, 14-3-3 \square has been observed to mediate nucleo-cytoplasmic shuttling of the N protein (coronavirus nucleocapsid protein) which causes severe acute respiratory syndrome (2).

References

1. Lau, J.M. et al: The 14-3-3tau phosphoserine-binding protein is required for cardiomyocyte survival. *Mol Cell Biol.* 2007, 27(4):1455-66.
2. The severe acute respiratory syndrome coronavirus nucleocapsid protein is phosphorylated and localizes in the cytoplasm by 14-3-3-mediated translocation. *J Virol.* 2005 Sep;79(17):11476-86.

Formulation

The siRNAs are supplied as a lyophilized powder and shipped at room temperature.

Reconstitution Protocol

Briefly centrifuge the tubes (maximum RCF 4,000g) to collect lyophilized siRNA at the bottom of the tube. Resuspend the siRNA in 50 μl of DEPC-treated water (supplied by researcher), which results in a 1x stock solution (10 μM). Gently pipet the solution 3-5 times to mix and avoid the introduction of bubbles. Optional: aliquot 1x stock solutions for storage.

Related Products

Product Name	Catalog Number
14-3-3 theta Protein	Y84-30G
14-3-3 theta Protein	Y84-30N

14-3-3 theta siRNA Set I

siRNA duplexes targeted against three exon regions

Catalog Number	Y84-911
Specific Lot Number	Z2013-4
Packaging Specifications	2.5 nmol/tube for 3 x 5 nmol
Format	Lyophilized powder
Stability	1yr at -70°C from date of shipment
Storage & Shipping	The lyophilized powder is stable for at least 4 weeks at room temperature. It is recommended that the lyophilized and resuspended siRNAs are stored at or below -20°C. After resuspension, siRNA stock solutions ≥2 μM can undergo up to 50 freeze-thaw cycles without significant degradation. For long-term storage, it is recommended that the siRNA is stored at -70°C. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

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