

Catalogue #	Aliquot Size
E23-911-05	3 x 5 nmol
E23-911-20	3 x 20 nmol
E23-911-50	3 x 50 nmol

EIF2S1 siRNA Set I

siRNA duplexes targeted against three exon regions

Catalog # E23-911

Lot # Z2037-14

Specificity

EIF2S1 siRNAs are designed to specifically knock-down human EIF2S1 expression.

Product Description

EIF2S1 siRNA is a pool of three individual synthetic siRNA duplexes designed to knock-down human EIF2S1 mRNA expression. Each siRNA is 19-25 bases in length. The gene accession number is [NM_004094](#).

Gene Aliases

EIF-2; EIF-2A; EIF-2alpha; EIF2; EIF2A

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 μ M 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

EIF2S1, also known as eukaryotic translation initiation factor 2, subunit 1 alpha, is a 35kDa protein in which The translation initiation factor EIF2 catalyzes the first regulated step of protein synthesis initiation and promotes the binding of the initiator tRNA to 40S ribosomal subunits. Binding occurs as a ternary complex of methionyl-tRNA, EIF2, and GTP (1). The Ser51 in the mature human EIF2-alpha protein acts as the sole site of phosphorylation that leads to repression of protein synthesis. EIF2-alpha also plays an essential role in erythropoiesis (2).

References

- Ernst, H. et.al: Cloning and sequencing of complementary DNAs encoding the alpha-subunit of translational initiation factor eIF-2: characterization of the protein and its messenger RNA. J. Biol. Chem. 262: 1206-1212, 1987.
- Pathak, V. K.et.al: Generation of a mutant form of protein synthesis initiation factor eIF-2 lacking the site of phosphorylation by eIF-2 kinases. Molec. Cell. Biol. 8: 993-995, 1988.

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 μ l of DEPC-treated water (supplied by researcher), which results in a 1x stock solution (10 μ M). 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
EIF2S Peptide	E23-58
EIF2S1 Protein	E23-54H
Modified EIF2S Peptide	E23-58B

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Catalog Number	E23-911
Specific Lot Number	Z2037-14
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 μ M 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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