

P312-911B-05	3 x 5 nmol
P312-911B-20	3 x 20 nmol
P312-911B-50	3 x 50 nmol

PAD2 siRNA Set I

siRNA duplexes targeted against three exon regions

Catalog # P312-911B

Lot # Z2061-70

Specificity

PAD2 siRNAs are designed to specifically knock-down human PAD2 expression.

Product Description

PAD2 siRNA is a pool of three individual synthetic siRNA duplexes designed to knock-down human PAD2 mRNA expression. Each siRNA is 19-25 bases in length. The gene accession number is [BC049947](#).

Gene Aliases

PADI2; mKIAA0994

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

PAD2 is a member of the peptidyl arginine deiminase family of enzymes, which catalyze the post-translational deimination of proteins by converting arginine residues into citrullines in the presence of calcium ions. PAD2 has peptidylarginine deiminase activity against synthetic substrates (1). PAD2 is mainly expressed in the central nervous system, skeletal muscle, spinal cord, cerebrum, cerebellum, and submaxillary gland (2). PAD2 play a role in the onset and progression of neurodegenerative human disorders, including Alzheimer disease and multiple sclerosis, and it has also been implicated in glaucoma pathogenesis.

References

1. Ishigami, A. et.al: Human peptidylarginine deiminase type II: molecular cloning, gene organization, and expression in human skin. Arch. Biochem. Biophys. 407: 25-31, 2002.
2. Watanabe, K. et.al: Isolation and characterization of cDNA clones encoding rat skeletal muscle peptidylarginine deiminase. J. Biol. Chem. 264: 15255-15260, 1989.

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
PAD1 Protein	P312-30G
PAD2 Protein	P312-30BG
PAD3 Protein	P312-30CG
PAD4 Protein	P312-30DG
PAD6 Protein	P312-30FG
PAD Cocktail, Active	P312-37C

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siRNA duplexes targeted against three exon regions

Catalog Number	P312-911B
Specific Lot Number	Z2061-70
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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