

PNKD siRNA (m): sc-152353

BACKGROUND

PNKD (paroxysmal nonkinesigenic dyskinesia protein), also known as Myofibrillogenesis regulator 1 and Trans-activated by hepatitis C virus core protein 2, is a 385 amino acid protein that interacts with sarcomeric proteins such as myosin regulatory light chain, β -enolase and myomesin 1. Due to overexpression studies in mice, it is likely that PNKD plays a significant role in cardiac hypertrophy through activation of the NF κ B signaling pathway. There are at least three isoforms of PNKD that are produced as a result of alternative splicing events. Isoform 1 is a peripheral membrane protein, isoform 2 resides in the cytoplasm and nucleus and isoform 3 is associated with the mitochondrion. Defects in the gene encoding PNKD are the cause of dystonia type 8, a paroxysmal non-kinesigenic dystonia/dyskinesia. This disorder is characterized by attacks of involuntary movements brought on by fatigue, alcohol, stress or caffeine.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Pnkd (mouse) mapping to 1 C3.

PRODUCT

PNKD siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PNKD shRNA Plasmid (m): sc-152353-SH and PNKD shRNA (m) Lentiviral Particles: sc-152353-V as alternate gene silencing products.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

PNKD siRNA (m) is recommended for the inhibition of PNKD expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 μ M in 66 μ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PNKD gene expression knockdown using RT-PCR Primer: PNKD (m)-PR: sc-152353-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.