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PPAPDC3 siRNA (m): sc-152404

BACKGROUND

PPAPDC3 (phosphatidic acid phosphatase type 2 domain containing 3), also known as NET39 or probable lipid phosphate phosphatase PPAPDC3, is a 271 amino acid multi-pass membrane protein that belongs to the PA-phosphatase related phosphoesterase family. Localizing to nucleus envelope and endoplasmic reticulum membrane, PPAPDC3 is oriented so that both N- and C-terminals are exposed to cytoplasm/nucleoplasm. Highly expressed in cardiac and skeletal muscle tissues, PPAPDC3 functions as a negative regulator of myoblast differentiation, partly through effects on FRAP signaling. PPAPDC3 controls FRAP-dependent IGF-II expression during differentiation and likely operates as part of the regulatory machinery for myogenesis. PPAPDC3 may also be involved in muscle homeostasis activity. The gene that encodes PPAPDC3 maps to human chromosome 9q34.13.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Ppapdc3 (mouse) mapping to 2 B.

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.

PRODUCT

PPAPDC3 siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs 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 PPAPDC3 shRNA Plasmid (m): sc-152404-SH and PPAPDC3 shRNA (m) Lentiviral Particles: sc-152404-V as alternate gene silencing products.

For independent verification of PPAPDC3 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-152404A, sc-152404B and sc-152404C.

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

PPAPDC3 siRNA (m) is recommended for the inhibition of PPAPDC3 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 PPAPDC3 gene expression knockdown using RT-PCR Primer: PPAPDC3 (m)-PR: sc-152404-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.