

▶ PARM-1 siRNA (m): sc-140523

BACKGROUND

PARM-1 (prostate androgen-regulated mucin-like protein 1), also known as WSC4 or Cipar1, is a 310 amino acid single-pass type I membrane protein that is widely expressed with highest levels in heart, kidney and placenta. Induced by androgens, PARM-1 may participate in regulating telomerase activity and in the expression of TP1 (telomerase associated protein 1), thereby enabling specific prostatic cells to resist apoptosis. In rats, an increase in PARM-1 expression in response to ER stress inducers, such as thapsigargin and tunicamycin, result in apoptotic cell death. Downregulation of PARM-1 expression enhances apoptotic response in cardiac myocytes to ER stresses and represses or augments expression of ER stress associated proteins PERK, ATF-6 α and GADD 153 (also known as CHOP). This suggests that PARM-1 expression is regulated by ER stress and plays a protective role in cardiac myocytes. Localized to the golgi apparatus and the endoplasmic reticulum, PARM-1 is highly N- and O-glycosylated.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Parm1 (mouse) mapping to 5 E2.

PROTOCOLS

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

PRODUCT

PARM-1 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 PARM-1 shRNA Plasmid (m): sc-140523-SH and PARM-1 shRNA (m) Lentiviral Particles: sc-140523-V as alternate gene silencing products.

For independent verification of PARM-1 (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-140523A, sc-140523B and sc-140523C.

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

PARM-1 siRNA (m) is recommended for the inhibition of PARM-1 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 PARM-1 gene expression knockdown using RT-PCR Primer: PARM-1 (m)-PR: sc-140523-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.