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# TEM7R siRNA (m): sc-154187

## BACKGROUND

TEM7R (tumor endothelial marker 7-related protein), also known as PLXDC2 (plexin domain-containing protein 2), is a 529 amino acid single-pass type I membrane protein containing one PSI domain and belonging to the plexin family. Localizing to membrane, TEM7R is expressed in endothelial cells of the stroma, as well as limbs, lung buds, developing heart, spinal cord and dorsal root ganglia. TEM7R interacts with cortactin and may play a role in tumor angiogenesis. Existing as three alternatively spliced isoforms, the gene encoding TEM7R maps to human chromosome 10p12.31. Spanning nearly 135 million base pairs, chromosome 10 makes up approximately 4.5% of total DNA in cells and encodes nearly 1,200 genes. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie-Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Plxdc2 (mouse) mapping to 2 A2.

## PRODUCT

TEM7R 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TEM7R shRNA Plasmid (m): sc-154187-SH and TEM7R shRNA (m) Lentiviral Particles: sc-154187-V as alternate gene silencing products.

For independent verification of TEM7R (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-154187A, sc-154187B and sc-154187C.

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

## APPLICATIONS

TEM7R siRNA (m) is recommended for the inhibition of TEM7R 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  $\mu$ M in 66  $\mu$ 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 TEM7R gene expression knockdown using RT-PCR Primer: TEM7R (m)-PR: sc-154187-PR (20  $\mu$ 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.