

▶ TEX22 siRNA (m): sc-154221

BACKGROUND

TEX22 (testis expressed gene 22), also known as Tep22, is a 189 amino acid protein that is predominately expressed in spermatocytes and spermatids in testis. During early stage spermatid elongation, TEX22 localizes to the acrosomal region, and localizes to the cytoplasm during later stage elongation. Present in the midpiece of spermatids and in the mitochondrial sheath of mature spermatozoa, TEX22 may be involved in acrosome biogenesis. The gene encoding TEX22 maps to the telomeric region of mouse chromosome 12. The human homolog to TEX22, also known as LOC647310, is a 150 amino acid protein that is encoded by a gene mapping to human chromosome 14q32.33.

REFERENCES

1. Neesen, J., et al. 2002. Tep22, a novel testicular expressed gene, is involved in the biogenesis of the acrosome and the midpiece of the sperm tail. *Biochem. Biophys. Res. Commun.* 297: 737-748.
2. de Rooij, D.G., et al. 2003. Specific arrests of spermatogenesis in genetically modified and mutant mice. *Cytogenet. Genome Res.* 103: 267-276.
3. Zambrowicz, B.P., et al. 2003. Wnk1 kinase deficiency lowers blood pressure in mice: a gene-trap screen to identify potential targets for therapeutic intervention. *Proc. Natl. Acad. Sci. USA* 100: 14109-14114.
4. Carninci, P., et al. 2005. The transcriptional landscape of the mammalian genome. *Science* 309: 1559-1563.
5. Kuntz, S., et al. 2008. Tex19, a mammalian-specific protein with a restricted expression in pluripotent stem cells and germ line. *Stem Cells* 26: 734-744.
6. Church, D.M., et al. 2009. Lineage-specific biology revealed by a finished genome assembly of the mouse. *PLoS Biol.* 7: e1000112.

CHROMOSOMAL LOCATION

Genetic locus: Tex22 (mouse) mapping to 12 F1.

PRODUCT

TEX22 siRNA (m) is a pool of 2 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 TEX22 shRNA Plasmid (m): sc-154221-SH and TEX22 shRNA (m) Lentiviral Particles: sc-154221-V as alternate gene silencing products.

For independent verification of TEX22 (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-154221A and sc-154221B.

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.

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

TEX22 siRNA (m) is recommended for the inhibition of TEX22 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 TEX22 gene expression knockdown using RT-PCR Primer: TEX22 (m)-PR: sc-154221-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.