

OY-TES-1 siRNA (m): sc-151953

BACKGROUND

OY-TES-1, also known as ACRBP (Acrosin binding protein) or SP32, is a 543 amino acid secreted protein that is found on sperm acrosomes where it colocalizes with Acrosin. Expressed in normal testicular tissue, OY-TES-1 binds to Acrosin and is thought to mediate the packaging and condensation of Acrosin in the acrosomal matrix. In addition to its expression in testis, OY-TES-1 is present in cancer tissue throughout the body, including breast, bladder, liver and lung carcinomas, suggesting an involvement in tumor formation and metastasis. The gene encoding OY-TES-1 maps to human chromosome 12p13.31, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and Trisomy 12p, which causes facial developmental defects and seizure disorders.

REFERENCES

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3. Tümer, Z., et al. 2002. Genomic structure, chromosome mapping and expression analysis of the human AVIL gene, and its exclusion as a candidate for locus for inflammatory bowel disease at 12q13-14 (IBD2). *Gene* 288: 179-185.
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5. Okumura, H., et al. 2005. Identification of an HLA-A24-restricted OY-TES-1 epitope recognized by cytotoxic T-cells. *Microbiol. Immunol.* 49: 1009-1016.
6. Online Mendelian Inheritance in Man, OMIM[™]. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 608352. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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CHROMOSOMAL LOCATION

Genetic locus: Acrbp (mouse) mapping to 6 F2.

PRODUCT

OY-TES-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 OY-TES-1 shRNA Plasmid (m): sc-151953-SH and OY-TES-1 shRNA (m) Lentiviral Particles: sc-151953-V as alternate gene silencing products.

For independent verification of OY-TES-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-151953A, sc-151953B and sc-151953C.

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

OY-TES-1 siRNA (m) is recommended for the inhibition of OY-TES-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.

GENE EXPRESSION MONITORING

OY-TES-1 (G-5): sc-390594 is recommended as a control antibody for monitoring of OY-TES-1 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor OY-TES-1 gene expression knockdown using RT-PCR Primer: OY-TES-1 (m)-PR: sc-151953-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.