

# TAPT1 siRNA (h): sc-89016

## BACKGROUND

TAPT1 (transmembrane anterior posterior transformation protein 1 homolog), also known as cytomegalovirus partial fusion receptor (CMVFR), is a 567 amino acid multi-pass membrane protein belonging to the TAPT1 family. TAPT1 is ubiquitously expressed and highly conserved, and may function as a transmitter of extracellular information required for axial skeletal patterning during development. TAPT1 exists as two alternatively spliced isoforms, and is encoded by a gene that maps to human chromosome 4p15.32. Chromosome 4 represents approximately 6% of the human genome and contains nearly 900 genes. The Huntingtin gene, which is found to encode an expanded glutamine tract in cases of Huntington's disease, is located on chromosome 4. FGFR-3 is also encoded by a gene that maps to human chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: TAPT1 (human) mapping to 4p15.32.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PRODUCT

TAPT1 siRNA (h) 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 TAPT1 shRNA Plasmid (h): sc-89016-SH and TAPT1 shRNA (h) Lentiviral Particles: sc-89016-V as alternate gene silencing products.

For independent verification of TAPT1 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-89016A, sc-89016B and sc-89016C.

## 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

TAPT1 siRNA (h) is recommended for the inhibition of TAPT1 expression in human 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 TAPT1 gene expression knockdown using RT-PCR Primer: TAPT1 (h)-PR: sc-89016-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.