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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

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- Mindermengenzuschlag
- Trockeneiszuschlag
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SANTA CRUZ BIOTECHNOLOGY, INC.

TTC12 siRNA (m): sc-154750

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The tetratricopeptide repeat (TPR) motif is a degenerate, 34 amino acid sequence found in many proteins and acts to mediate protein-protein interactions in various pathways. At the sequence level, there can be up to 16 tandem TPR repeats, each of which has a helix-turn-helix shape that stacks on other TPR repeats to achieve ligand binding specificity. TTC12 (tetratricopeptide repeat domain 12), also known as TPARM, is a 705 amino acid cytoplasmic protein containing a TPR repeat domain and three armadillo repeat motifs. TTC12 is expressed in testis, prostate, lung, germinal center B cells, neuroblastoma, teratocarcinoma, colon cancer and gastric cancer. The gene encoding TTC12 is located in a region of human chromosome 11q23.2 that is commonly deleted in a variety of cancers, therefore, it is considered a candidate tumor suppressor gene. Human chromosome 11 houses over 1,400 genes and comprises nearly 4% of the human genome.

REFERENCES

1. Katoh, M. and Katoh, M. 2003. Identification and characterization of TPARM gene in silico. Int. J. Oncol. 23: 1213-1217.
2. Gelernter, J., et al. 2006. Haplotype spanning TTC12 and ANKK1, flanked by the DRD2 and NCAM1 loci, is strongly associated to nicotine dependence in two distinct American populations. Hum. Mol. Genet. 15: 3498-3507.
3. Yang, B.Z., et al. 2007. Association of haplotypic variants in DRD2, ANKK1, TTC12 and NCAM1 to alcohol dependence in independent case control and family samples. Hum. Mol. Genet. 16: 2844-2853.
4. Wattanawaraporn, R., et al. 2007. Hypermethylation of TTC12 gene in acute lymphoblastic leukemia. Leukemia 21: 2370-2373.
5. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610732. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Korkola, J.E., et al. 2008. *In vivo* differentiation and genomic evolution in adult male germ cell tumors. Genes Chromosomes Cancer 47: 43-55.
7. David, S.P., et al. 2010. Sex differences in TTC12/ANKK1 haplotype associations with daily tobacco smoking in Black and White Americans. Nicotine Tob. Res. 12: 251-262.

CHROMOSOMAL LOCATION

Genetic locus: Ttc12 (mouse) mapping to 9 A5.3.

PRODUCT

TTC12 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TTC12 shRNA Plasmid (m): sc-154750-SH and TTC12 shRNA (m) Lentiviral Particles: sc-154750-V as alternate gene silencing products.

For independent verification of TTC12 (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-154750A, sc-154750B and sc-154750C.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

TTC12 siRNA (m) is recommended for the inhibition of TTC12 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 µM in 66 µl. 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

TTC12 (B-1): sc-390229 is recommended as a control antibody for monitoring of TTC12 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-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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 TTC12 gene expression knockdown using RT-PCR Primer: TTC12 (m)-PR: sc-154750-PR (20 µl). 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.