



ZN-16 siRNA (h): sc-95257

BACKGROUND

ZN-16, also known as ZNF292 (zinc finger protein 292) or Zn-15, is a 2,723 amino acid nuclear protein that is implicated in transcriptional regulation. A member of the Krüppel C₂H₂-type zinc-finger protein family, ZN-16 contains 15 C₂H₂-type zinc fingers and is post-translationally phosphorylated by either Atm or ATR. ZN-16 exists as two alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 6q14.3. Chromosome 6 contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

REFERENCES

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3. Cesari, R., et al. 2003. Parkin, a gene implicated in autosomal recessive juvenile parkinsonism, is a candidate tumor suppressor gene on chromosome 6q25-q27. *Proc. Natl. Acad. Sci. USA* 100: 5956-5961.
4. Flynn, M.P. and Hurley, D.L. 2006. Growth hormone transcription factor ZN-16 genomic coding regions are composed of a single exon and are evolutionarily conserved in mammals. *Gene* 368: 78-83.
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6. Bläker, H., et al. 2008. Recurrent deletions at 6q in early age of onset non-HNPCC- and non-FAP-associated intestinal carcinomas. Evidence for a novel cancer susceptibility locus at 6q14-q22. *Genes Chromosomes Cancer* 47: 159-164.
7. Fan, J., et al. 2010. Linkage disequilibrium mapping of the chromosome 6q21-22.31 bipolar I disorder susceptibility locus. *Am. J. Med. Genet. B Neuropsychiatr. Genet.* 153B: 29-37.
8. Jalil, S., et al. 2010. Associations among behavior-related susceptibility factors in porphyria cutanea tarda. *Clin. Gastroenterol. Hepatol.* 8: 297-302, 302.e1.

CHROMOSOMAL LOCATION

Genetic locus: ZNF292 (human) mapping to 6q14.3.

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.

PRODUCT

ZN-16 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ZN-16 shRNA Plasmid (h): sc-95257-SH and ZN-16 shRNA (h) Lentiviral Particles: sc-95257-V as alternate gene silencing products.

For independent verification of ZN-16 (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-95257A, sc-95257B and sc-95257C.

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

ZN-16 siRNA (h) is recommended for the inhibition of ZN-16 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 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 ZN-16 gene expression knockdown using RT-PCR Primer: ZN-16 (h)-PR: sc-95257-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.