SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF318 siRNA (m): sc-63252

BACKGROUND

ZNF318 (zinc finger protein 318), also known as TZF (testicular zinc-finger protein) or ZFP318, is a 2,279 amino acid endocrine regulatory protein that localizes to the nucleus. Highly expressed in testis, ovaries and kidneys, ZNF318 is a co-repressor of androgen receptor (AR)-mediated transcriptional activation and is thought to regulate transcription during spermatogenesis. ZNF318 interacts with the N-terminal domain of AR and contains two matrin-type zinc fingers. Two isoforms of ZNF318, designated TZF and TZF-L, are produced due to alternative splicing events. Each of these splice variants are thought to have unique roles in transcriptional regulation. While the TZF isoform functions as a repressor of AR-mediated transcriptional activation, the TZF-L isoform is thought to enhance AR-mediated transcriptional activation.

REFERENCES

1. Ishizuka, M., et al. 2003. Molecular cloning and characteristics of a novel zinc finger protein and its splice variant whose transcripts are expressed during spermatogenesis. Biochem. Biophys. Res. Commun. 301: 1079-1085.
2. Ishizuka, M., et al. 2005. A zinc finger protein TZF is a novel corepressor of androgen receptor. Biochem. Biophys. Res. Commun. 331: 1025-1031.
3. Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. Science 314: 268-274.
4. Tao, R.H., et al. 2006. Opposite effects of alternative TZF spliced variants on androgen receptor. Biochem. Biophys. Res. Commun. 341: 515-521.
5. Tao, R.H., et al. 2006. Testicular zinc finger protein recruits histone deacetylase 2 and suppresses the transactivation function and intranuclear foci formation of agonist-bound androgen receptor competitively with TIF2. Mol. Cell. Endocrinol. 247: 150-165.
6. Trtková, K., et al. 2007. Histone acetylation and methylation in the signaling of steroid hormone receptors. Cell. Mol. Biol. 53: OL930-OL942.

CHROMOSOMAL LOCATION

Genetic locus: Zfp318 (mouse) mapping to 17 C.

PRODUCT

ZNF318 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 ZNF318 shRNA Plasmid (m): sc-63252-SH and ZNF318 shRNA (m) Lentiviral Particles: sc-63252-V as alternate gene silencing products.

For independent verification of ZNF318 (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-63252A, sc-63252B and sc-63252C.

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 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

ZNF318 siRNA (m) is recommended for the inhibition of ZNF318 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor ZNF318 gene expression knockdown using RT-PCR Primer: ZNF318 (m)-PR: sc-63252-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.