SANTA CRUZ BIOTECHNOLOGY, INC.

TRIM17 siRNA (m): sc-106639

BACKGROUND

The tripartite motif (TRIM) family of proteins are characterized by a conserved TRIM domain that includes a coiled-coil region, a B box-type zinc finger, one RING finger and three zinc-binding domains. TRIM17 (tripartite motif-containing 17), also known as RBCC, terf or RNF16, is a 477 amino acid protein that contains one RING-type zinc finger, one SPRY domain and one B box-type zinc finger. Expressed nearly exclusively in testis, TRIM17 belongs to the TRIM family and, based on its functional domains, may play a role in transcriptional regulation events. The gene encoding TRIM17 maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Reddy, B.A., et al. 1992. A novel zinc finger coiled-coil domain in a family of nuclear proteins. Trends Biochem. Sci. 17: 344-345.
2. Borden, K.L., et al. 1996. The RING finger domain: a recent example of a sequence-structure family. Curr. Opin. Struct. Biol. 6: 395-401.
3. Ogawa, S., et al. 1998. Molecular cloning of a novel RING finger-B box-coiled coil (RBCC) protein, terf, expressed in the testis. Biochem. Biophys. Res. Commun. 251: 515-519.
4. Ogawa, S., et al. 2000. Chromosome mapping of RNF16 and rnf16, human, mouse and rat genes coding for testis RING finger protein (terf), a member of the RING finger family. Cytogenet. Cell Genet. 89: 56-58.
5. Reymond, A., et al. 2001. The tripartite motif family identifies cell compartments. EMBO J. 20: 2140-2151.
6. Shyu, H.W., et al. 2001. A novel member of the RBCC family, Trif, expressed specifically in the spermatids of mouse testis. Mech. Dev. 108: 213-216.

CHROMOSOMAL LOCATION

Genetic locus: Trim17 (mouse) mapping to 11 B1.3.

PRODUCT

TRIM17 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 TRIM17 shRNA Plasmid (m): sc-106639-SH and TRIM17 shRNA (m) Lentiviral Particles: sc-106639-V as alternate gene silencing products.

For independent verification of TRIM17 (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-106639A, sc-106639B and sc-106639C.

RESEARCH USE

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

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

TRIM17 siRNA (m) is recommended for the inhibition of TRIM17 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 TRIM17 gene expression knockdown using RT-PCR Primer: TRIM17 (m)-PR: sc-106639-PR (20 µl). 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 or our catalog for detailed protocols and support products.