SANTA CRUZ BIOTECHNOLOGY, INC.

TRIM61 siRNA (h): sc-89032

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. TRIM61 (tripartite motif-containing protein 61), also known as RNF35 (RING finger protein 35), is a 209 amino acid protein that contains a variety of domains that are characteristic to TRIM proteins, including a RING-type zinc finger and a B box-type zinc finger. In mice, TRIM61 is temporarily transcribed in the early embryo, but then is permanently silenced before the blastocyst stage of development. Transcription of TRIM61 is positively regulated by nuclear factor Y (NF-Y). The gene encoding TRIM61 maps to human chromosome 4q32.3, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes.

REFERENCES

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2. Choo, K.B., et al. 2002. Different modes of regulation of transcription and pre-mRNA processing of the structurally juxtaposed homologs, Rnf33 and Rnf35, in eggs and in pre-implantation embryos. Nucleic Acids Res. 30: 4836-4844.
3. Goldfrank, D., et al. 2003. Disease genes and chromosomes: disease maps of the human genome. Chromosome 4. Genet. Test. 7: 351-372.
4. Gerhard, D.S., et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). Genome Res. 14: 2121-2127.
5. Huang, C.J., et al. 2005. Transcriptional modulation of the pre-implantation embryo-specific Rnf35 gene by the Y-box protein NF-Y/CBF. Biochem. J. 387: 367-375.
6. Huang, C.J., et al. 2005. Negative transcriptional modulation and silencing of the bi-exonic Rnf35 gene in the preimplantation embryo. Binding of the CCAAT-displacement protein/Cux to the untranslated exon 1 sequence. J. Biol. Chem. 280: 30681-30688.

CHROMOSOMAL LOCATION

Genetic locus: TRIM61 (human) mapping to 4q32.3.

PRODUCT

TRIM61 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TRIM61 shRNA Plasmid (h): sc-89032-SH and TRIM61 shRNA (h) Lentiviral Particles: sc-89032-V as alternate gene silencing products.

For independent verification of TRIM61 (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-89032A, sc-89032B and sc-89032C.

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

TRIM61 siRNA (h) is recommended for the inhibition of TRIM61 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 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 TRIM61 gene expression knockdown using RT-PCR Primer: TRIM61 (h)-PR: sc-89032-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.