SANTA CRUZ BIOTECHNOLOGY, INC.

TRIM60 siRNA (h): sc-89310

BACKGROUND

TRIM60 (tripartite motif-containing 60, RING finger protein 23, RING finger protein 129) is a 471 amino acid protein that contains one RING-type zinc finger, one B30.2/SPRY domain and one B box-type zinc finger. Tripartite motif (TRIM) proteins play important roles in a variety of cellular functions including cell proliferation, differentiation, development, oncogenesis, and apoptosis. The 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. TRIM60 is thought to be involved in protein-protein and protein-DNA interactions. It is believed the Trim60 gene is temporally transcribed in the preimplantation embryo before being silenced at the blastocyst stage but Trim60 expression is detected in adult testis of the mouse. The gene encoding TRIM60 maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

REFERENCES

1. Reymond, A., et al. 2001. The tripartite motif family identifies cell compartments. EMBO J. 20: 2140-2151.
2. Chang, R., et al. 2002. Molecular cloning, mapping and characterization of a novel mouse RING finger gene, Mrf1. Gene 291: 241-249.
3. Short, K.M. and Cox, T.C. 2006. Subclassification of the RBCC/TRIM superfamily reveals a novel motif necessary for microtubule binding. J. Biol. Chem. 281: 8970-8980.
4. Woo, J.S., et al. 2006. Structural basis for protein recognition by B30.2/SPRY domains. Mol. Cell 24: 967-976.
5. Tao, H., et al. 2008. Structure of the MID1 tandem B-boxes reveals an interaction reminiscent of intermolecular ring heterodimers. Biochemistry 47: 2450-2457.
6. Kawai, T. and Akira, S. 2011. Regulation of innate immune signalling pathways by the tripartite motif (TRIM) family proteins. EMBO Mol. Med. 3: 513-527.
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CHROMOSOMAL LOCATION

Genetic locus: TRIM60 (human) mapping to 4q32.3.

PRODUCT

TRIM60 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 TRIM60 shRNA Plasmid (h): sc-89310-SH and TRIM60 shRNA (h) Lentiviral Particles: sc-89310-V as alternate gene silencing products.

For independent verification of TRIM60 (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-89310A, sc-89310B and sc-89310C.

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

TRIM60 siRNA (h) is recommended for the inhibition of TRIM60 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 TRIM60 gene expression knockdown using RT-PCR Primer: TRIM60 (h)-PR: sc-89310-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.