SANTA CRUZ BIOTECHNOLOGY, INC.

TRIM47 siRNA (h): sc-93720

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. TRIM47 (tripartite motif-containing 47), also known as GOA (gene overexpressed in astrocytoma protein) or RNF100 (RING finger protein 100), is a 638 amino acid protein that localizes to both cytoplasm and nucleus and belongs to the TRIM/RBCC family. While TRIM47 expression is low in most tissues, it is highly expressed in kidney tubular cells and overexpressed in astrocytoma tumor cells. Containing one B box-type zinc finger, B30.2/SPRY domain and a RING-type zinc finger, the gene encoding TRIM47 maps to human chromosome 17q25.1.

REFERENCES

1. Vandeputte, D.A., et al. 2001. GOA, a novel gene encoding a ring finger B-box coiled-coil protein, is overexpressed in astrocytoma. Biochem. Biophys. Res. Commun. 286: 574-579.
2. Dingus, J., et al. 2002. Purification of G protein isoforms GOA and GOC from bovine brain. Meth. Enzymol. 344: 176-185.
3. Beausoleil, S.A., et al. 2006. A probability-based approach for high-throughput protein phosphorylation analysis and site localization. Nat. Biotechnol. 24: 1285-1292.
4. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611041. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Sardiello, M., et al. 2008. Genomic analysis of the TRIM family reveals two groups of genes with distinct evolutionary properties. BMC Evol. Biol. 8: 225.
6. Ozato, K., et al. 2008. TRIM family proteins and their emerging roles in innate immunity. Nat. Rev. Immunol. 8: 849-860.
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CHROMOSOMAL LOCATION

Genetic locus: TRIM47 (human) mapping to 17q25.1.

PRODUCT

TRIM47 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 TRIM47 shRNA Plasmid (h): sc-93720-SH and TRIM47 shRNA (h) Lentiviral Particles: sc-93720-V as alternate gene silencing products.

For independent verification of TRIM47 (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-93720A, sc-93720B and sc-93720C.

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

TRIM47 siRNA (h) is recommended for the inhibition of TRIM47 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 TRIM47 gene expression knockdown using RT-PCR Primer: TRIM47 (h)-PR: sc-93720-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 for detailed protocols and support products.