SANTA CRUZ BIOTECHNOLOGY, INC.

TRIM11 siRNA (m): sc-76735

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The Power to Question

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. TRIM11 (tripartite motif-containing 11), also known as BIA1 or RNF92, is a 468 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one RING-type zinc finger, one SPRY domain and one B box-type zinc finger. Expressed ubiquitously, TRIM11 is thought to function as an E3 ubiquitin ligase that may regulate the intracellular level of select proteins via control of the proteasomal degradation pathway. Multiple isoforms of TRIM11 exist due to alternative splicing events.

REFERENCES

1. Reymond, A., et al. 2001. The tripartite motif family identifies cell compartments. EMBO J. 20: 2140-2151.
2. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607868. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Meroni, G. and Diez-Roux, G. 2005. TRIM/RBCC, a novel class of "single protein RING finger" E3 ubiquitin ligases. Bioessays 27: 1147-1157.
4. Ishikawa, H., et al. 2006. TRIM11 binds to and destabilizes a key component of the activator-mediated cofactor complex (ARC105) through the ubiquitin-proteasome system. FEBS Lett. 580: 4784-4792.
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. Hong, S.J., et al. 2008. TRIM11 increases expression of dopamine β-hydroxylase gene by interacting with Phox2b. Biochem. Biophys. Res. Commun. 368: 650-655.
7. Bowie, A.G. 2008. TRIM-ing down Tolls. Nat. Immunol. 9: 348-350.

CHROMOSOMAL LOCATION

Genetic locus: Trim11 (mouse) mapping to 11 B1.3.

PRODUCT

TRIM11 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 TRIM11 shRNA Plasmid (m): sc-76735-SH and TRIM11 shRNA (m) Lentiviral Particles: sc-76735-V as alternate gene silencing products.

For independent verification of TRIM11 (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-76735A, sc-76735B and sc-76735C.

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

TRIM11 siRNA (m) is recommended for the inhibition of TRIM11 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 TRIM11 gene expression knockdown using RT-PCR Primer: TRIM11 (m)-PR: sc-76735-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Zhu, G., et al. 2020. TRIM11 prevents and reverses protein aggregation and rescues a mouse model of Parkinson's disease. Cell Rep. 33: 108418.

RESEARCH USE

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