



UBTD1 siRNA (m): sc-154877

BACKGROUND

Ubiquitin (Ub) is among the most phylogenetically conserved proteins known. The primary function of this small, 76 amino acid protein is to clear abnormal, foreign and improperly folded proteins by targeting them for degradation by the 26S proteasome. Many ubiquitin-like proteins function as post-translational protein modifiers, such as members of the SUMO protein family, however some ubiquitin-like proteins regulate protein-protein interactions and cell cycle events, thereby functioning outside of the traditional ubiquitination pathway. UBTD1 (ubiquitin domain-containing protein 1) is a 227 amino acid protein containing one C-terminal ubiquitin-like (UBQ) domain. With only one UBQ domain, it is likely that UBTD1 is capable of conjugation to other proteins and mostly functions in similar ways to ubiquitin in the modification of post-translational proteins.

REFERENCES

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4. Su, H.L. and Li, S.S. 2002. Molecular features of human ubiquitin-like SUMO genes and their encoded proteins. *Gene* 296: 65-73.
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CHROMOSOMAL LOCATION

Genetic locus: Ubtd1 (mouse) mapping to 19 C3.

PRODUCT

UBTD1 siRNA (m) is a pool of 2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see UBTD1 shRNA Plasmid (m): sc-154877-SH and UBTD1 shRNA (m) Lentiviral Particles: sc-154877-V as alternate gene silencing products.

For independent verification of UBTD1 (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-154877A and sc-154877B.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

UBTD1 siRNA (m) is recommended for the inhibition of UBTD1 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 μ M in 66 μ l. 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 UBTD1 gene expression knockdown using RT-PCR Primer: UBTD1 (m)-PR: sc-154877-PR (20 μ l). 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.