

UBXD1 siRNA (m): sc-154879

BACKGROUND

UBX domain-containing protein 1 (UBXD1), also known as UBX domain-containing protein 6 (UBXD6), is a 441 amino acid cofactor of the ATPase complex known as valosin containing protein (VCP). VCP plays a critical role in a multitude of cellular pathways, including membrane fusion, protein folding, protein degradation, DNA repair and ubiquitin-dependent activation of certain membrane-bound transcription factors. These diverse cellular functions appear to be made possible by the association of VCP with various cofactors, one of which includes UBXD1. Localized to the cytoplasm, nucleus and centrosome, with enhanced expression in testis, UBXD1 contains two domains: a PUG domain, which allows interaction with VCP, and an UBX domain. Two named isoforms of UBXD1 exist as a result of alternative splicing events.

REFERENCES

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3. Allen, M.D., et al. 2006. The PUB domain functions as a p97 binding module in human peptide N-glycanase. *J. Biol. Chem.* 281: 25502-25508.
4. Zhao, G., et al. 2007. Studies on peptide: N-glycanase-p97 interaction suggest that p97 phosphorylation modulates endoplasmic reticulum-associated degradation. *Proc. Natl. Acad. Sci. USA* 104: 8785-8790.
5. Yeung, H.O., et al. 2008. Insights into adaptor binding to the AAA protein p97. *Biochem. Soc. Trans.* 36: 62-67.
6. Schuberth, C. and Buchberger, A. 2008. UBX domain proteins: major regulators of the AAA ATPase Cdc48/p97. *Cell. Mol. Life Sci.* 65: 2360-2371.
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CHROMOSOMAL LOCATION

Genetic locus: Ubxn6 (mouse) mapping to 17 D.

PRODUCT

UBXD1 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see UBXD1 shRNA Plasmid (m): sc-154879-SH and UBXD1 shRNA (m) Lentiviral Particles: sc-154879-V as alternate gene silencing products.

For independent verification of UBXD1 (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-154879A, sc-154879B and sc-154879C.

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 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

UBXD1 siRNA (m) is recommended for the inhibition of UBXD1 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 UBXD1 gene expression knockdown using RT-PCR Primer: UBXD1 (m)-PR: sc-154879-PR (20 μ l, 582 bp). 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.