

UBL3 siRNA (m): sc-154863

BACKGROUND

Ubiquitin is a 77 amino acid protein that targets proteins for degradation by the 26S proteasome. Ubiquitin-like proteins are not directly involved in protein degradation, but appear to have many mechanistic similarities with the ubiquitin pathway. UBL3 (ubiquitin-like protein 3), also known as membrane-anchored ubiquitin-fold protein (MUB) or PNSC1, is a 117 amino acid membrane protein belonging to the ubiquitin-like family. Highly conserved between species, UBL3 contains two potential N-glycosylation sites, a potential protein kinase C phosphorylation site, and a potential C-terminal prenylation site. The gene encoding UBL3 is localized to chromosome 13q12.3.

REFERENCES

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- Segref, A. and Hoppe, T. 2009. Think locally: control of ubiquitin-dependent protein degradation in neurons. *EMBO Rep.* 10: 44-50.
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CHROMOSOMAL LOCATION

Genetic locus: Ubl3 (mouse) mapping to 5 G3.

PRODUCT

UBL3 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 UBL3 shRNA Plasmid (m): sc-154863-SH and UBL3 shRNA (m) Lentiviral Particles: sc-154863-V as alternate gene silencing products.

For independent verification of UBL3 (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-154863A, sc-154863B and sc-154863C.

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 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

UBL3 siRNA (m) is recommended for the inhibition of UBL3 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.

GENE EXPRESSION MONITORING

UBL3 (C-2): sc-514190 is recommended as a control antibody for monitoring of UBL3 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor UBL3 gene expression knockdown using RT-PCR Primer: UBL3 (m)-PR: sc-154863-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.