

UBPH siRNA (h): sc-93472

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. UBPH (ubiquitin-binding protein homolog), also known as ubiquitin domain-containing protein UBFD1, is a 533 amino acid protein that contains one ubiquitin-like domain. The gene encoding UBPH maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition. There are two isoforms of MTHFSD that are produced as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: UBFD1 (human) mapping to 16p12.2.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

UBPH 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see UBPH shRNA Plasmid (h): sc-93472-SH and UBPH shRNA (h) Lentiviral Particles: sc-93472-V as alternate gene silencing products.

For independent verification of UBPH (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-93472A, sc-93472B and sc-93472C.

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

UBPH siRNA (h) is recommended for the inhibition of UBPH 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 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 UBPH gene expression knockdown using RT-PCR Primer: UBPH (h)-PR: sc-93472-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.