SANTA CRUZ BIOTECHNOLOGY, INC.

UBE2Q1 siRNA (h): sc-76790

BACKGROUND

Ubiquitination involves at least three classes of enzymes: ubiquitin-activating enzymes (UBE1s), ubiquitin-conjugating enzymes (UBE2s), and ubiquitin-protein ligases (UBE3s). When ubiquitin is activated by a UBE1, it is transferred to the cysteine residue on a UBE2. UBE2 then binds a UBE3, which transfers the ubiquitin from the UBE2 cysteine to a lysine residue on the target protein. Ubiquitin-conjugating enzyme E2 Q1 (UBE2Q1), also known as ubiquitin-protein ligase Q1 or ubiquitin carrier protein Q1, is an 422 amino acid protein belonging to the ubiquitin-conjugating enzyme (UBE2) family. Two named isoforms of UBE2Q1 exist as a result of alternative splicing events.

REFERENCES

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4. Melner, M.H., et al. 2006. Demonstration of ubiquitin thiolester formation of UBE2Q2 (UBCi), a novel ubiquitin-conjugating enzyme with implantation site-specific expression. Biol. Reprod. 75: 395-406.
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8. Shah, I.M. and Di Napoli, M. 2007. The ubiquitin-proteasome system and proteasome inhibitors in central nervous system diseases. Cardiovasc. Hematol. Disord. Drug Targets 7: 250-273.

CHROMOSOMAL LOCATION

Genetic locus: UBE2Q1 (human) mapping to 1q21.3.

PRODUCT

UBE2Q1 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see UBE2Q1 shRNA Plasmid (h): sc-76790-SH and UBE2Q1 shRNA (h) Lentiviral Particles: sc-76790-V as alternate gene silencing products.

For independent verification of UBE2Q1 (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-76790A, sc-76790B and sc-76790C.

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

UBE2Q1 siRNA (h) is recommended for the inhibition of UBE2Q1 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 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 UBE2Q1 gene expression knockdown using RT-PCR Primer: UBE2Q1 (h)-PR: sc-76790-PR (20 µl). 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.