SANTA CRUZ BIOTECHNOLOGY, INC.

UBA52 siRNA (h): sc-106653

BACKGROUND

Ubiquitin (Ub) is among the most phylogenetically conserved proteins known. The primary function of ubiquitin is to clear abnormal, foreign and improperly folded proteins by targeting them for degradation by the 26S proteosome. Encoded by four genes, ubiquitin is synthesized as precursor proteins that consist of either single ubiquitin moieties fused 5' to unrelated carboxyl extension proteins, known as UBA type, or polyubiquitin chains that are cleaved into moieties of the UBB or UBC types. As a UBA type ubiquitin, UBA52 (Ubiquitin-60S ribosomal protein L40), also known as CEP52 and Ubiquitin A-52 residue ribosomal protein fusion product 1, is a 128 amino acid protein that is cleaved into ubiquitin and 60S ribosomal protein L40. Normally expressed in lymphocytes and placenta, UBA52 is overexpressed in renal cancer cells and colorectal carcinoma, suggesting it may have a role to play in tumorigenesis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: UBA52 (human) mapping to 19p13.11.

PRODUCT

UBA52 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 UBA52 shRNA Plasmid (h): sc-106653-SH and UBA52 shRNA (h) Lentiviral Particles: sc-106653-V as alternate gene silencing products.

For independent verification of UBA52 (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-106653A, sc-106653B and sc-106653C.

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

UBA52 siRNA (h) is recommended for the inhibition of UBA52 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 UBA52 gene expression knockdown using RT-PCR Primer: UBA52 (h)-PR: sc-106653-PR (20 µl, 558 bp). 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.