SANTA CRUZ BIOTECHNOLOGY, INC.

NUDT13 siRNA (h): sc-90368

BACKGROUND

NUDT13 (nudix (nucleoside diphosphate linked moiety X)-type motif 13) is a 352 amino acid protein belonging to the Nudix hydrolase family of pyrophosphatases. Nudix hydrolases contain a characteristic Nudix domain and are responsible for catalyzing the hydrolysis of nucleoside diphosphate derivatives. Existing as two isoforms due to alternative splicing events, NUDT13 is highly expressed in metastasis-suppressed chromosome 6 melanoma hybrids. The gene encoding NUDT13 maps to human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie-Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromatic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

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CHROMOSOMAL LOCATION

Genetic locus: NUDT13 (human) mapping to 10q22.1.

PROTOCOLS

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

PRODUCT

NUDT13 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 NUDT13 shRNA Plasmid (h): sc-90368-SH and NUDT13 shRNA (h) Lentiviral Particles: sc-90368-V as alternate gene silencing products.

For independent verification of NUDT13 (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-90368A, sc-90368B and sc-90368C.

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

NUDT13 siRNA (h) is recommended for the inhibition of NUDT13 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 NUDT13 gene expression knockdown using RT-PCR Primer: NUDT13 (h)-PR: sc-90368-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.