SANTA CRUZ BIOTECHNOLOGY, INC.

OTUD7A siRNA (h): sc-90013

BACKGROUND

OTUD7A (OTU domain-containing protein 7A), also known as CEZANNE2, is a 926 amino acid cytoplasmic and nuclear protein that belongs to the peptidase C64 family. OTUD7A contains one A20-type zinc finger, one OTU domain and exists as two alternatively spliced isoforms. Hydrolyzing both linear and branched forms of polyubiquitin, OTUD7A has deubiquitinating activity that is directed towards "Lys-48" or "Lys-63"-linked polyubiquitin chains. The gene that encodes OTUD7A consists of approximately 174,262 bases and maps to human chromosome 15q13.3. Chromosome 15 houses over 700 genes and comprises nearly 3% of the human genome. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes in the 15q11-q13 region. Tay-Sachs disease is a lethal disorder associated with mutations of the HEXA gene, which is encoded by chromosome 15, while Marfan syndrome is associated with chromosome 15 through the FBN1 gene.

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CHROMOSOMAL LOCATION

Genetic locus: OTUD7A (human) mapping to 15q13.3.

PRODUCT

OTUD7A 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 OTUD7A shRNA Plasmid (h): sc-90013-SH and OTUD7A shRNA (h) Lentiviral Particles: sc-90013-V as alternate gene silencing products.

For independent verification of OTUD7A (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-90013A, sc-90013B and sc-90013C.

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

OTUD7A siRNA (h) is recommended for the inhibition of OTUD7A 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 OTUD7A gene expression knockdown using RT-PCR Primer: OTUD7A (h)-PR: sc-90013-PR (20 µl, 493 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.

PROTOCOLS

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