SANTA CRUZ BIOTECHNOLOGY, INC.

RES4-22 siRNA (h): sc-89014

BACKGROUND

RES4-22, also known as FAM193A (family with sequence similarity 193, member A), is a 1,265 amino acid protein that belongs to the FAM193 family. Autoantibodies to RES4-22 have been detected in patients with neurological disorders, especially cerebral ischaemia. The RES4-22 gene is conserved in chimpanzee, canine, mouse, rat, chicken and zebrafish. Existing as four alternatively spliced isoforms, RES4-22 is located close to the Huntington's disease gene, which is found to encode an expanded glutamine tract on human chromosome 4p16.3. FGFR-3 is also encoded by a gene located on chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: FAM193A (human) mapping to 4p16.3.

PROTOCOLS

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

PRODUCT

RES4-22 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 RES4-22 shRNA Plasmid (h): sc-89014-SH and RES4-22 shRNA (h) Lentiviral Particles: sc-89014-V as alternate gene silencing products.

For independent verification of RES4-22 (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-89014A, sc-89014B and sc-89014C.

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

RES4-22 siRNA (h) is recommended for the inhibition of RES4-22 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 RES4-22 gene expression knockdown using RT-PCR Primer: RES4-22 (h)-PR: sc-89014-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.