SANTA CRUZ BIOTECHNOLOGY, INC.

REEP2 siRNA (h): sc-91876

BACKGROUND

REEP2, also known as receptor accessory protein 2, is a 252 amino acid multi-pass membrane protein that belongs to the DP1 family. REEP2 is detected in brain, heart and skeletal muscle, and at low levels in placenta, kidney and pancreas. The REEP2 protein interacts with odorant receptor proteins and plays a role in sweet receptor function. Existing as two alternatively spliced isoforms, REEP2 is encoded by a gene that contains eight exons and spans more than 7 kb. The REEP2 gene is conserved in chimpanzee, bovine, mouse, chicken, zebrafish, fruit fly and *C. elegans,* and maps to human chromosome 5q31.2 within a region frequently deleted in malignant myelomas. Chromosome 5 makes up approximately 6% of the human genome and contains 181 million base pairs, which encode 1,000 genes. Deletion of 5q or chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: REEP2 (human) mapping to 5q31.2.

PRODUCT

REEP2 siRNA (h) is a pool of 2 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 REEP2 shRNA Plasmid (h): sc-91876-SH and REEP2 shRNA (h) Lentiviral Particles: sc-91876-V as alternate gene silencing products.

For independent verification of REEP2 (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-91876A and sc-91876B.

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

REEP2 siRNA (h) is recommended for the inhibition of REEP2 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 REEP2 gene expression knockdown using RT-PCR Primer: REEP2 (h)-PR: sc-91876-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.