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SANTA CRUZ BIOTECHNOLOGY, INC.

PPP1R1C siRNA (m): sc-152419

BACKGROUND

PPP1R1C (protein phosphatase 1, regulatory (inhibitor) subunit 1C), also known as IPP5, is a 109 amino acid protein that belongs to the protein phosphatase inhibitor 1 family. PPP1R1C localizes to cytoplasm and exists as two alternatively spliced isoforms. PPP1R1C maps to human chromosome 2q31.3, which is included in the critical region for 2q31.2q32.3 syndrome. The syndrome consists of multiple dysmorphisms, developmental delay, mental retardation, behavioral disturbances and speech impairment. As the second largest human chromosome, chromosome 2 makes up approximately 8% of the human genome and contains 237 million bases encoding over 1,400 genes. Chromosome 2 contains a probable vestigial second centromere, as well as vestigial telomeres, which gives credence to the hypothesis that human chromosome 2 formed as a result of an ancient fusion of two ancestral chromosomes, which are still present in modern day apes.

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CHROMOSOMAL LOCATION

Genetic locus: Ppp1r1c (mouse) mapping to 2 C3.

PROTOCOLS

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

PRODUCT

PPP1R1C siRNA (m) 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 PPP1R1C shRNA Plasmid (m): sc-152419-SH and PPP1R1C shRNA (m) Lentiviral Particles: sc-152419-V as alternate gene silencing products.

For independent verification of PPP1R1C (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-152419A, sc-152419B and sc-152419C.

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

PPP1R1C siRNA (m) is recommended for the inhibition of PPP1R1C expression in mouse 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 PPP1R1C gene expression knockdown using RT-PCR Primer: PPP1R1C (m)-PR: sc-152419-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.