

PPP1R3F siRNA (m): sc-152423

BACKGROUND

Seven family members of glycogen-targeting subunits are designated in humans: PPP1R3, PPP1R4, PTG, PPP1R6, PPP1R3E, PPP1R3F and PPP1R3G. Glycogen-targeting subunits bind to PP1 regulate its substrate activity and localize it to specific cellular sites. Glycogen-targeting subunits may also function as a scaffold for the assembly and regulation of glycogen metabolizing enzymes. PPP1R3F (protein phosphatase 1, regulatory (inhibitor) subunit 3F), also known as HB2E, is a 799 amino acid single-pass membrane protein that contains one carbohydrate binding type-21 (CBM21) domain. Encoded by a gene that maps to human chromosome Xp11.23, PPP1R3F exists in a novel candidate gene locus, from Xp11.2 to Xq13.3, that is linked to parkinsonian syndrome with variable spasticity and four-repeat tau pathology. PPP1R3F is also a candidate synaptic gene that may play a role in autism spectrum disorder and schizophrenia.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Ppp1r3f (mouse) mapping to X A1.1.

PRODUCT

PPP1R3F 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 PPP1R3F shRNA Plasmid (m): sc-152423-SH and PPP1R3F shRNA (m) Lentiviral Particles: sc-152423-V as alternate gene silencing products.

For independent verification of PPP1R3F (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-152423A, sc-152423B and sc-152423C.

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

PPP1R3F siRNA (m) is recommended for the inhibition of PPP1R3F 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 PPP1R3F gene expression knockdown using RT-PCR Primer: PPP1R3F (m)-PR: sc-152423-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.