

PRPF40B siRNA (m): sc-152498

BACKGROUND

PRPF40B (PRP40 pre-mRNA processing factor 40 homolog B), also known as HYPIC (Huntingtin yeast partner C) or Huntingtin interacting protein C, is an 871 amino acid protein that contains two FF domains, two WW domains and belongs to the PRPF40 family. Localizing to nucleus speckle, PRPF40B is highly expressed in testis, fetal kidney and fetal brain, moderately expressed in pancreas, skeletal muscle, placenta, brain and heart, and weakly expressed in colon, ileum, ovary, prostate, spleen, kidney and fetal lung. Like other family members, PRPF40B may be involved in pre-mRNA splicing. PRPF40B exists as four alternatively spliced isoforms and is encoded by a gene located on human chromosome 12q13.12 and mouse chromosome 15 F1.

REFERENCES

1. Horowitz, D.S., et al. 1997. A human protein required for the second step of pre-mRNA splicing is functionally related to a yeast splicing factor. *Genes Dev.* 11: 139-151.
2. Horowitz, D.S., et al. 1997. A new cyclophilin and the human homologues of yeast Prp3 and Prp4 form a complex associated with U4/U6 snRNPs. *RNA* 3: 1374-1387.
3. Faber, P.W., et al. 1998. Huntingtin interacts with a family of WW domain proteins. *Hum. Mol. Genet.* 7: 1463-1474.
4. Passani, L.A., et al. 2000. Huntingtin's WW domain partners in Huntington's disease post-mortem brain fulfill genetic criteria for direct involvement in Huntington's disease pathogenesis. *Hum. Mol. Genet.* 9: 2175-2182.
5. Chakarova, C.F., et al. 2002. Mutations in HPRP3, a third member of pre-mRNA splicing factor genes, implicated in autosomal dominant retinitis pigmentosa. *Hum. Mol. Genet.* 11: 87-92.
6. Scott, W.G., et al. 2009. Structure and function of regulatory RNA elements: ribozymes that regulate gene expression. *Biochim. Biophys. Acta* 1789: 634-641.

CHROMOSOMAL LOCATION

Genetic locus: Prpf40b (mouse) mapping to 15 F1.

PRODUCT

PRPF40B 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PRPF40B shRNA Plasmid (m): sc-152498-SH and PRPF40B shRNA (m) Lentiviral Particles: sc-152498-V as alternate gene silencing products.

For independent verification of PRPF40B (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-152498A, sc-152498B and sc-152498C.

PROTOCOLS

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

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

PRPF40B siRNA (m) is recommended for the inhibition of PRPF40B 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 μ M in 66 μ l. 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 PRPF40B gene expression knockdown using RT-PCR Primer: PRPF40B (m)-PR: sc-152498-PR (20 μ l). 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.