SANTA CRUZ BIOTECHNOLOGY, INC.

PABPC5 siRNA (h): sc-91049

BACKGROUND

PABPC5 (poly(A) binding protein, cytoplasmic 5), also known as PABP5, is a 382 amino acid cytoplasmic protein that binds the poly(A) tail at the 3' end of most eukaryotic mRNA. PABPC5 may also bind other cytoplasmic RNA sequences *in vivo* and is thought to regulate various steps during mRNA metabolism. Expressed in multiple adult tissues and fetal brain, PABPC5 contains four RRM (RNA recognition motif) domains. PABPC5 is encoded by a gene that maps to human chromosome Xq21.31, a region in close proximity to several translocation breakpoints linked to premature ovarian failure. Chromosome X consists of about 153 million base pairs and nearly 1,000 genes. Color blindness, hemophilia and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently, as males carry a single X chromosome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PABPC5 (human) mapping to Xq21.31.

PRODUCT

PABPC5 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 PABPC5 shRNA Plasmid (h): sc-91049-SH and PABPC5 shRNA (h) Lentiviral Particles: sc-91049-V as alternate gene silencing products.

For independent verification of PABPC5 (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-91049A, sc-91049B and sc-91049C.

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

PABPC5 siRNA (h) is recommended for the inhibition of PABPC5 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 PABPC5 gene expression knockdown using RT-PCR Primer: PABPC5 (h)-PR: sc-91049-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.

PROTOCOLS

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