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PNMA5 siRNA (m): sc-152355

BACKGROUND

PNMA5 (paraneoplastic antigen like 5), also known as tumor antigen BJ-HCC-25, is a 448 amino acid protein belonging to the putative gene family PNMA, which consists of six genes known as PNMA1, PNMA2, PNMA3, PNMA4, PNMA5 and PNMA6. PNMA5 is preferentially expressed in primate association areas of the neocortex. Similar to the expression pattern of RBP mRNA, PNMA5 likely plays a role in closely related cortical circuits, which may be involved in fundamentally associative functions of the neocortex. PNMA5 sequences among mammals diverge significantly within primates, suggesting that PNMA5 acquired a specialized role in the association areas of the neocortex during primate evolution. The gene that encodes PNMA5 maps to human chromosome X A7.3. Chromosome X consists of nearly 153 million base pairs encoding approximately 1,000 genes.

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CHROMOSOMAL LOCATION

Genetic locus: Pnma5 (mouse) mapping to X A7.3.

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.

PRODUCT

PNMA5 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 PNMA5 shRNA Plasmid (m): sc-152355-SH and PNMA5 shRNA (m) Lentiviral Particles: sc-152355-V as alternate gene silencing products.

For independent verification of PNMA5 (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-152355A, sc-152355B and sc-152355C.

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

PNMA5 siRNA (m) is recommended for the inhibition of PNMA5 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 PNMA5 gene expression knockdown using RT-PCR Primer: PNMA5 (m)-PR: sc-152355-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.