SANTA CRUZ BIOTECHNOLOGY, INC.

PGBD2 siRNA (h): sc-88701

BACKGROUND

Initially characterized in the cabbage looper moth, *Trichoplusia ni,* the PGBD (piggyBac transposable element-derived) family is comprised of a group of transposases that are conserved in a wide variety of species, including protozoa and primates. More specifically, while PGBD3 and PGBD4 are primate-specific genes, the other three members of the PGBD family (namely PGBD1, PGBD2 and PGBD5) are conserved among a variety of vertebrates. PGDB2 (piggyBac transposable element derived 2) is a 592 amino acid protein that exists as two alternatively spliced isoforms. PGBD2 consists largely of a single, long coding exon, with one intron near the extreme N-terminus and another in the 5' UTR. The gene that encodes PGBD2 maps to human chromosome 1q44. Deletions in chromosome 1q44 are linked to corpus callosum agenesis/hypogenesis and Dandy-Walker complex.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PGBD2 (human) mapping to 1q44.

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

PGBD2 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 PGBD2 shRNA Plasmid (h): sc-88701-SH and PGBD2 shRNA (h) Lentiviral Particles: sc-88701-V as alternate gene silencing products.

For independent verification of PGBD2 (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-88701A, sc-88701B and sc-88701C.

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

PGBD2 siRNA (h) is recommended for the inhibition of PGBD2 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 PGBD2 gene expression knockdown using RT-PCR Primer: PGBD2 (h)-PR: sc-88701-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.