SANTA CRUZ BIOTECHNOLOGY, INC.

PPAN siRNA (h): sc-97093

BACKGROUND

PPAN (peter pan homolog), also known as Ssf-1 (suppressor of SWI4 1 homolog) or brix domain-containing protein 3, is a 473 amino acid protein that contains one Brix domain and exists as two alternatively spliced isoforms. Containing 12 exons, PPAN contains 2 characteristic CpG islands upstream of exon 1 and exon 6, with both islands having TATA elements nearby, which suggests that PPAN possesses 2 potential promoter regions. Encoded by a gene that maps to human chromosome 19p13.2, PPAN localizes to nucleus and is ubiquitously expressed, with highest levels in heart, skeletal muscle, kidney and liver. PPAN functions as a putative tumor suppressor in HF cells, nontransformed revertants of HeLa cells. Upregulated expression of PPAN in myeloid leukemia cells occurs in response to granulocyte-colony stimulating factor and dibutyryl-cAMP. PPAN may also play a role in cell growth.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PPAN (human) mapping to 19p13.2.

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

PPAN siRNA (h) is a target-specific 19-25 nt siRNA 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 PPAN shRNA Plasmid (h): sc-97093-SH and PPAN shRNA (h) Lentiviral Particles: sc-97093-V as alternate gene silencing 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 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

PPAN siRNA (h) is recommended for the inhibition of PPAN 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.

GENE EXPRESSION MONITORING

PPAN (C-7): sc-398273 is recommended as a control antibody for monitoring of PPAN gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PPAN gene expression knockdown using RT-PCR Primer: PPAN (h)-PR: sc-97093-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.