



PPIAL4 siRNA (h): sc-78771

BACKGROUND

PPIAL4 (peptidylprolyl isomerase A (cyclophilin A)-like 4), also known as COAS2, PPIAL4A, PPIAL4B, PPIAL4C, PPIAL4D or PPIAL4G, is a 164 amino acid protein that contains one PPIase cyclophilin-type domain and belongs to the cyclophilin-type PPIase family and the PPIase A subfamily. Localizing to cytoplasm, PPIAL4 is one of seven related genes or pseudogenes, in a cluster that likely results from gene duplication on chromosome 1. Similar to other PPIases, PPIAL4 accelerates the folding of proteins and catalyzes the *cis-trans* isomerization of proline imidic peptide bonds in oligopeptides. PPIAL4 shares 84% amino acid identity with cyclophilin A, including complete conservation of critical residues in the active site and in the *cis*-proline binding pocket. Ubiquitously expressed, with highest expression in brain and lowest in skeletal muscle, PPIAL4 also exhibits high expression in several osteosarcomas and breast cancer cell lines.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: PPIAL4A (human) mapping to 1q21.2.

PRODUCT

PPIAL4 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PPIAL4 shRNA Plasmid (h): sc-78771-SH and PPIAL4 shRNA (h) Lentiviral Particles: sc-78771-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 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

PPIAL4 siRNA (h) is recommended for the inhibition of PPIAL4 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 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 PPIAL4 gene expression knockdown using RT-PCR Primer: PPIAL4 (h)-PR: sc-78771-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.