SANTA CRUZ BIOTECHNOLOGY, INC.

POLDIP3 siRNA (m): sc-76193

BACKGROUND

POLDIP3 (polymerase δ-interacting protein 3), also known as SKAR or PDIP46, is a 421 amino acid nuclear protein. POLDIP3 interacts with DNA pol δ 2, a protein essential to DNA replication, recombination and repair. POLDIP3 is a substrate for the signaling intermediate Rsk-1 and is thought to regulate cell growth. POLDIP3 contains one RRM (RNA recognition motif) domain and is phosphorylated upon DNA damage. POLDIP3 is ubiquitously expressed, with highest levels found in heart, kidney, skeletal muscle and brain. Due to alternative splicing, POLDIP3 is expressed as two isoforms.

REFERENCES

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3. Richardson, C.J., Bröenstrup, M., Fingar, D.C., Jülich, K., Ballif, B.A., Gygi, S. and Blenis, J. 2004. SKAR is a specific target of S6 kinase 1 in cell growth control. Curr. Biol. 14: 1540-1549.
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CHROMOSOMAL LOCATION

Genetic locus: Poldip3 (mouse) mapping to 15 E1.

PRODUCT

POLDIP3 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see POLDIP3 shRNA Plasmid (m): sc-76193-SH and POLDIP3 shRNA (m) Lentiviral Particles: sc-76193-V as alternate gene silencing products.

For independent verification of POLDIP3 (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-76193A, sc-76193B and sc-76193C.

PROTOCOLS

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

POLDIP3 siRNA (m) is recommended for the inhibition of POLDIP3 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 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

POLDIP3 (G-2): sc-398931 is recommended as a control antibody for monitoring of POLDIP3 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 POLDIP3 gene expression knockdown using RT-PCR Primer: POLDIP3 (m)-PR: sc-76193-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.