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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

PAP-2d siRNA (m): sc-152009

BACKGROUND

PAP-2d (phosphatidic acid phosphatase 2d), also known as LPPR5 (lipid phosphate phosphatase-related protein type 5) or PRG-5 (plasticity-related gene 5 protein), is a 321 amino acid multi-pass membrane protein that belongs to the phosphatidic acid phosphatase (PAP) related phosphoesterase family and exists as two alternatively spliced isoforms. Isoform 1 is expressed in brain, lung, kidney and colon, while isoform 2 is expressed in placenta, skeletal muscle and kidney. The gene that encodes PAP-2d consists of around 114,788 bases and maps to human chromosome 1p21.3. Comprising nearly 8% of the human genome, chromosome 1 spans 260 million base pairs, contains over 3,000 genes and houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome.

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CHROMOSOMAL LOCATION

Genetic locus: 4833424O15Rik (mouse) mapping to 3 G1.

PROTOCOLS

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

PRODUCT

PAP-2d 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 PAP-2d shRNA Plasmid (m): sc-152009-SH and PAP-2d shRNA (m) Lentiviral Particles: sc-152009-V as alternate gene silencing products.

For independent verification of PAP-2d (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-152009A, sc-152009B and sc-152009C.

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

PAP-2d siRNA (m) is recommended for the inhibition of PAP-2d 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PAP-2d gene expression knockdown using RT-PCR Primer: PAP-2d (m)-PR: sc-152009-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.