SANTA CRUZ BIOTECHNOLOGY, INC.

PATL1 siRNA (m): sc-152036

BACKGROUND

PATL1, also known as Pat1b, is a 770 amino acid cytoplasmic protein that belongs to the PAT1 family and exists as four alternatively spliced isoforms. As a scaffolding protein that connects deadenylation and decapping machinery, PATL1 is involved in the deadenylation-dependent decapping and degradation of mRNAs. PATL1 is also required for assembly of cytoplasmic mRNA processing body (P-body) and is ubiquitously expressed. The gene that encodes PATL1 consists of about 32,323 bases and maps to human chromosome 11q12.1. Chromosome 11 houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that map to chromosome 11.

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CHROMOSOMAL LOCATION

Genetic locus: Patl1 (mouse) mapping to 19 A.

PRODUCT

PATL1 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 PATL1 shRNA Plasmid (m): sc-152036-SH and PATL1 shRNA (m) Lentiviral Particles: sc-152036-V as alternate gene silencing products.

For independent verification of PATL1 (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-152036A, sc-152036B and sc-152036C.

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

PATL1 siRNA (m) is recommended for the inhibition of PATL1 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 PATL1 gene expression knockdown using RT-PCR Primer: PATL1 (m)-PR: sc-152036-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.