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SANTA CRUZ BIOTECHNOLOGY, INC.

PDZK11 siRNA (m): sc-152146

BACKGROUND

PDZK11 (PDZ domain containing 11), also known as PISP, AIPP1 or PDZD11, is a 140 amino acid phosphoprotein that contains one PDZ (DHR) domain with short N- and C-terminal extensions. 15 C-terminal amino acids of PDZK11 are necessary for ATP7A binding, and PDZK11 also interacts with ATP71. PDZK11 is known to interact with plasma membrane Ca^{2+}-ATPase (PMCA) and Menkes copper ATPase (AIPP1), and undergoes a substantial increase in tyrosine phosphorylation following Insulin treatment, strongly implicating PDZK11 in calcium signaling as part of Insulin cascading. PDZK11 is a potential calcium ATPase binding protein that interacts with proteins involved in calcium homeostasis. An early activation profile of PDZK11 showing high fold change suggests a direct function in initial Insulin signaling, which may be linked to the acute effects of Insulin on calcium flux. Ubiquitously expressed, with highest levels in kidney, liver and skeletal muscle, PDZK11 contains seven exons and exists as two alternatively spliced isoforms. PDZK11 is encoded by a gene that maps to human chromosome Xq13.1.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Pdzd11 (mouse) mapping to X C3.

PRODUCT

PDZK11 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 PDZK11 shRNA Plasmid (m): sc-152146-SH and PDZK11 shRNA (m) Lentiviral Particles: sc-152146-V as alternate gene silencing products.

For independent verification of PDZK11 (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-152146A, sc-152146B and sc-152146C.

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

PDZK11 siRNA (m) is recommended for the inhibition of PDZK11 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 PDZK11 gene expression knockdown using RT-PCR Primer: PDZK11 (m)-PR: sc-152146-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.