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SANTA CRUZ BIOTECHNOLOGY, INC.

PDXDC1 siRNA (m): sc-152144

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

PDXDC1 (pyridoxal-dependent decarboxylase domain containing 1), also known as LP8165, KIAA0251 or PDXDC1, is a 788 amino acid protein belonging to the group II decarboxylase family. Encoded by a gene that maps to human chromosome 16p13.11, PDXDC1 is significantly and extensively conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish, fruit fly, mosquito and *C.elegans.* While PDXDC1 is suggested to be an ancient and common link for pyridoxal-dependent decarboxylases, it is postulated that prokaryotic and eukaryotic HDC (histidine decarboxylase) activities evolved independently. Existing as two alternatively spliced isoforms, PDXDC1 is phosphorylated upon DNA damage, possibly by Atm or ATR. PDXDC1 plays a role in carboxylic acid metabolic processes, carboxy-lyase activity, protein binding and pyridoxal phosphate binding.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Pdxdc1 (mouse) mapping to 16 A1.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

PDXDC1 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 PDXDC1 shRNA Plasmid (m): sc-152144-SH and PDXDC1 shRNA (m) Lentiviral Particles: sc-152144-V as alternate gene silencing products.

For independent verification of PDXDC1 (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-152144A, sc-152144B and sc-152144C.

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

PDXDC1 siRNA (m) is recommended for the inhibition of PDXDC1 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 PDXDC1 gene expression knockdown using RT-PCR Primer: PDXDC1 (m)-PR: sc-152144-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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