SANTA CRUZ BIOTECHNOLOGY, INC.

PDZK8 siRNA (h): sc-90520

BACKGROUND

PDZK8, also known as PDZD8 (PDZ domain containing 8) or sarcoma antigen NY-SAR-84/NY-SAR-104, is a 1,154 amino acid coiled-coil protein that participates in metal ion and protein binding. PDZK8 contains one phorbol-ester/DAG-type zinc finger, one N-terminal SMP domain and one PDZ (DHR) domain, which assists with localizing membrane channels and signaling both enzymes and adhesion molecules by binding C-terminal tri-peptides. PDZK8 possesses additional protein-protein interaction domains in architectures typical of protein scaffolds and adaptors. Overexpression of PDZK8 promotes reverse transcription initiation and increases pseudotyped retrovirus infection that is independent of viral entry. Conversely, knockdown of endogenous PDZK8 decreases HIV-1 infection. Mutant PDZK8, lacking a coiled-coil domain in its Gag-interacting region, fails to bind Gag and promote HIV-1 infection. PDZK8 is encoded by a gene that maps to human chromosome 10q25.3.

REFERENCES

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3. Catimel, B., et al. 2009. PI(3,4,5)P3 interactome. J. Proteome Res. 8: 3712-3726.
4. Kopec, K.O., et al. 2010. Homology of SMP domains to the TULIP superfamily of lipid-binding proteins provides a structural basis for lipid exchange between ER and mitochondria. Bioinformatics 26: 1927-1931.
5. Suda, Y., et al. 2010. The same enhancer regulates the earliest Emx2 expression in caudal forebrain primordium, subsequent expression in dorsal telencephalon and later expression in the cortical ventricular zone. Development 137: 2939-2949.
6. Henning, M.S., et al. 2010. PDZD8 is a novel Gag-interacting factor that promotes retroviral infection. J. Virol. 84: 8990-8995.
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CHROMOSOMAL LOCATION

Genetic locus: PDZD8 (human) mapping to 10q25.3.

PRODUCT

PDZK8 siRNA (h) 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 PDZK8 shRNA Plasmid (h): sc-90520-SH and PDZK8 shRNA (h) Lentiviral Particles: sc-90520-V as alternate gene silencing products.

For independent verification of PDZK8 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-90520A, sc-90520B and sc-90520C.

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

PDZK8 siRNA (h) is recommended for the inhibition of PDZK8 expression in human 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 PDZK8 gene expression knockdown using RT-PCR Primer: PDZK8 (h)-PR: sc-90520-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.

PROTOCOLS

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