

PTCHD1 siRNA (h): sc-91304

BACKGROUND

PTCHD1 (patched domain-containing protein 1) is an 888 amino acid multi-pass membrane protein. Belonging to the patched family, PTCHD1 contains one SSD (sterol-sensing) domain and is widely expressed, with high levels found in the gray and white cerebellum, spinal cord, stomach, uterus, prostate and lung. PTCHD1 may play a role in the hedgehog signaling pathway by inhibiting GLI promoter transcription. The gene encoding PTCHD1 maps to human chromosome Xp22.11 and mouse chromosome X F3. Deletions of the PTCHD1 gene have been linked to intellectual disability, autism and mental retardation. PTCHD1 exists as three isoforms due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PTCHD1 (human) mapping to Xp22.11.

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.

PRODUCT

PTCHD1 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PTCHD1 shRNA Plasmid (h): sc-91304-SH and PTCHD1 shRNA (h) Lentiviral Particles: sc-91304-V as alternate gene silencing products.

For independent verification of PTCHD1 (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-91304A, sc-91304B and sc-91304C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

PTCHD1 siRNA (h) is recommended for the inhibition of PTCHD1 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 μ M in 66 μ l. 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 PTCHD1 gene expression knockdown using RT-PCR Primer: PTCHD1 (h)-PR: sc-91304-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.