SANTA CRUZ BIOTECHNOLOGY, INC.

FKHL18 siRNA (h): sc-75023

BACKGROUND

The Fox family of transcription factors is a large group of proteins that share a common DNA-binding domain, termed a winged-helix or forkhead domain, and are classified into 20 subclasses. Many Fox proteins play important roles in development, metabolism, cancer and aging. FKHL18, also designated Forkhead box protein S1 (FoxS1) or Forkhead-related transcription factor 10 (FREAC-10), is a structurally unique member of the Fox family. FKHL18 is expressed in aorta, sensory neurons and fetal testis, suggesting diverse functions of the FKHL18 protein. Specifically, FKHL18 is thought to play a role in the integration and processing of neuronal signaling necessary for energy turnover and motor function. It has also been established as an early sensory neuronal marker.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: FOXS1 (human) mapping to 20q11.21.

PRODUCT

FKHL18 siRNA (h) is a pool of 2 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 FKHL18 shRNA Plasmid (h): sc-75023-SH and FKHL18 shRNA (h) Lentiviral Particles: sc-75023-V as alternate gene silencing products.

For independent verification of FKHL18 (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-75023A and sc-75023B.

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

FKHL18 siRNA (h) is recommended for the inhibition of FKHL18 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 FKHL18 gene expression knockdown using RT-PCR Primer: FKHL18 (h)-PR: sc-75023-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Diao, Y., et al. 2018. Identification of novel GLI1 target genes and regulatory circuits in human cancer cells. Mol. Oncol. 12: 1718-1734.

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.