SANTA CRUZ BIOTECHNOLOGY, INC.

KLHL3 siRNA (m): sc-143993

BACKGROUND

KLHL3 (kelch-like 3) is a 587 amino acid cytoplasmic protein that is ubiquitously expressed in a variety of tissues. Related to the *Drosophila* kelch protein, KLHL3 contains six kelch repeats and a BTB (POZ) domain. The BTB (broad-complex, tramtrack and Bric a brac) domain, also known as the POZ (poxvirus and zinc finger) domain, is a N-terminal homodimerization domain that contains multiple copies of kelch repeats and/or C_2H_2-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function. KLHL3 is suggested to be a probable substrate-specific adapter of an E3 ubiquitin-protein ligase complex, which mediates the ubiquitination and subsequent proteasomal degradation of target proteins. KLHL3 exists as three isoforms produced by alternative splicing events.

REFERENCES

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5. Lai, F., et al. 2001. Transcript map and comparative analysis of the 1.5-Mb commonly deleted segment of human 5q31 in malignant myeloid diseases with a del(5q). Genomics 71: 235-245.
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8. Stogios, P.J., et al. 2004. The BACK domain in BTB-kelch proteins. Trends Biochem. Sci. 29: 634-637.
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CHROMOSOMAL LOCATION

Genetic locus: Klhl3 (mouse) mapping to 13 B1.

PRODUCT

KLHL3 siRNA (m) is a target-specific 19-25 nt siRNA 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 KLHL3 shRNA Plasmid (m): sc-143993-SH and KLHL3 shRNA (m) Lentiviral Particles: sc-143993-V as alternate gene silencing products.

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

KLHL3 siRNA (m) is recommended for the inhibition of KLHL3 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 KLHL3 gene expression knockdown using RT-PCR Primer: KLHL3 (m)-PR: sc-143993-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.