SANTA CRUZ BIOTECHNOLOGY, INC.

KLHL30 siRNA (m): sc-146529

BACKGROUND

KLHL30 (kelch-like protein 30) is a 578 amino acid protein containing one BACK (BTB/Kelch associated) domain, one BTB (POZ) domain and six kelch repeats. The BTB (Broad-Complex, Tramtrack and Bric a brac) domain, also known as the POZ (Poxvirus and Zinc finger) domain, is an 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. Mutations affecting kelch function result in failure of kelch to associate with the ring canals. The gene encoding KLHL30 maps to human chromosome 2q37.3 and mouse chromosome 1 D.

REFERENCES

1. Albagli, O., et al. 1995. The BTB/POZ domain: a new protein-protein interaction motif common to DNA- and actin-binding proteins. Cell Growth Differ. 6: 1193-1198.
2. Robinson, D.N., et al. 1997. *Drosophila* kelch is an oligomeric ring canal actin organizer. J. Cell Biol. 138: 799-810.
3. Lai, F., et al. 2000. Molecular characterization of KLHL3, a human homologue of the *Drosophila* kelch gene. Genomics 66: 65-75.
4. Adams, J., et al. 2000. The kelch repeat superfamily of proteins: propellers of cell function. Trends Cell Biol. 10: 17-24.
5. Prag, S., et al. 2003. Molecular phylogeny of the kelch-repeat superfamily reveals an expansion of BTB/kelch proteins in animals. BMC Bioinformatics 4: 42.
6. Stogios, P.J., et al. 2004. The BACK domain in BTB-kelch proteins. Trends Biochem. Sci. 29: 634-637.
7. Gorjánácz, M., et al. 2006. Domains of Importin-α2 required for ring canal assembly during *Drosophila* oogenesis. J. Struct. Biol. 154: 27-41.

CHROMOSOMAL LOCATION

Genetic locus: Klhl30 (mouse) mapping to 1 D.

PRODUCT

KLHL30 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 KLHL30 shRNA Plasmid (m): sc-146529-SH and KLHL30 shRNA (m) Lentiviral Particles: sc-146529-V as alternate gene silencing products.

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.

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

KLHL30 siRNA (m) is recommended for the inhibition of KLHL30 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 KLHL30 gene expression knockdown using RT-PCR Primer: KLHL30 (m)-PR: sc-146529-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.