SANTA CRUZ BIOTECHNOLOGY, INC.

MOBKL2B siRNA (h): sc-92685

BACKGROUND

MOBKL2B (MOB1, Mps one binder kinase activator-like 2B) is a 216 amino acid protein that is related to the yeast MOB1 protein. Yeast MOB1 binds Mps1, a protein kinase essential for spindle pole body duplication and mitotic checkpoint regulation. Belonging to the MOB1/phocein family, MOBKL2B is suggested to regulate the activity of kinases. The gene encoding MOBKL2B is located on human chromosome 9, which consists of about 145 million bases and 4% of the human genome and encodes nearly 900 genes. Chromosome 9 is considered to play a role in gender determination, deletion of the distal portion of 9p can lead to development of male to female sex reversal, the phenotype of a female with a male X,Y genotype.

REFERENCES

1. van Slegtenhorst, M., et al. 1997. Identification of the tuberous sclerosis gene TSC1 on chromosome 9q34. Science 277: 805-808.
2. Hergovich, A., et al. 2006. The human tumour suppressor LATS1 is activated by human MOB1 at the membrane. Biochem. Biophys. Res. Commun. 345: 50-58.
3. Sasaki, H., et al. 2007. Human MOB1 expression in non-small-cell lung cancer. Clin. Lung Cancer 8: 273-276.
4. Praskova, M., et al. 2008. MOBKL1A/MOBKL1B phosphorylation by MST1 and MST2 inhibits cell proliferation. Curr. Biol. 18: 311-321.
5. Beà, S., et al. 2009. Uniparental disomies, homozygous deletions, amplifications, and target genes in mantle cell lymphoma revealed by integrative high-resolution whole-genome profiling. Blood 113: 3059-3069.
6. Wilmeth, L.J., et al. 2010. Mutual dependence of MOB1 and the chromosomal passenger complex for localization during mitosis. Mol. Biol. Cell 21: 380-392.

CHROMOSOMAL LOCATION

Genetic locus: MOBKL2B (human) mapping to 9p21.2.

PRODUCT

MOBKL2B 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 MOBKL2B shRNA Plasmid (h): sc-92685-SH and MOBKL2B shRNA (h) Lentiviral Particles: sc-92685-V as alternate gene silencing products.

For independent verification of MOBKL2B (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-92685A, sc-92685B and sc-92685C.

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

MOBKL2B siRNA (h) is recommended for the inhibition of MOBKL2B 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 MOBKL2B gene expression knockdown using RT-PCR Primer: MOBKL2B (h)-PR: sc-92685-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.