



# MOB2 siRNA (m): sc-108823

## BACKGROUND

MOB2 (Mps one binder kinase activator-like 2), also known as HCCA2 (hepatocellular carcinoma-associated gene 2), is a 268 amino acid protein that belongs to the MOB1/phocein family. MOB2 is expressed in lung, spleen, brain, and fetal liver. It is highly expressed in hepatocellular carcinoma. MOB2 is localized in the perinuclear region of the cytoplasm in liver cancer tissues and colocalizes with MAD2L2 in the nucleus of Hela cells. MOB2 is characterized by two N-glycosylation sites, six N-myristoylation sites, two Src homology 3 (SH3), and several phosphorylation motifs which indicate that this protein may play a role in an intracellular signal transduction cascade. MOB2 binds to and regulates the autophosphorylation of the related human serine/threonine kinase 38 (NDR1) and serine/threonine kinase 38L (NDR2). It has been shown that MOB2 plays a critical role in cell cycle regulation. Overexpression of the protein during the G<sub>0</sub>/G<sub>1</sub> phase inhibits cell proliferation causing cell cycle arrest.

## REFERENCES

1. Wang, Z.X., Wang, H.Y. and Wu, M.C. 2001. Identification and characterization of a novel human hepatocellular carcinoma-associated gene. *Br. J. Cancer* 85: 1162-1167.
2. Wang, Z., Wang, H. and Chen, Z. 2002. Cloning of liver cancer-related gene HCCA2 and association of that gene with liver cancer. *Zhonghua Yi Xue Za Zhi*. 81: 332-335.
3. Online Mendelian Inheritance in Man, OMIM. 2003. John Hopkins University, Baltimore, MD. MIM Number: 607860. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Devroe, E., Erdjument-Bromage, H., Tempst, P. and Silver, P.A. 2004. Human Mob proteins regulate the NDR1 and NDR2 serine-threonine kinases. *J. Biol. Chem.* 279: 24444-24451.
5. Li, L., Shi, Y., Wu, H., Wan, B., Li, P., Zhou, L., Shi, H. and Huo, K. 2007. Hepatocellular carcinoma-associated gene 2 interacts with MAD2L2. *Mol. Cell. Biochem.* 304: 297-304.

## CHROMOSOMAL LOCATION

Genetic locus: Mob2 (mouse) mapping to 7 F5.

## PRODUCT

MOB2 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see MOB2 shRNA Plasmid (m): sc-108823-SH and MOB2 shRNA (m) Lentiviral Particles: sc-108823-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](http://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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

MOB2 siRNA (m) is recommended for the inhibition of MOB2 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  $\mu$ M in 66  $\mu$ 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 MOB2 gene expression knockdown using RT-PCR Primer: MOB2 (m)-PR: sc-108823-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.