SANTA CRUZ BIOTECHNOLOGY, INC.

# MPP2 siRNA (h): sc-93779

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*The Power to Question*

## BACKGROUND

The MAGUK (membrane-associated guanylate kinase homologs) family of proteins contain multiple protein-binding domains and are involved in cell junction organization, tumor suppression, and signaling. The MAGUK family is divided into four subfamilies: DLG-like, ZO1-like, p55-like and LIN2-like. MPP2 (membrane protein, palmitoylated 2), also known as MAGUK p55 subfamily member 2, discs large homolog 2 or DLG2, is a 576 amino acid protein belonging to the MAGUK family that exists as three alternatively spliced isoforms. MPP2 contains one guanylate kinase-like domain, a PDZ (DHR) domain, two L27 domains and a single SH3 domain. The gene encoding MPP2 maps to the same segment of human chromosome 17q21.31 as MPP3, with whom MMP2 likely shares similar function and common structural organization.

## REFERENCES


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2. Smith, S.A., Holik, P., Stevens, J., Mazoyer, S., Melis, R., Williams, B., White, R. and Albertsen, H. 1996. Isolation of a gene (DLG3) encoding a second member of the discs-large family on chromosome 17q12-q21. Genomics 31: 145-150.
3. Katoh, M. and Katoh, M. 2004. Identification and characterization of human MPP7 gene and mouse Mpp7 gene in silico. Int. J. Mol. Med. 13: 333-338.
4. Godreau, D., Neyroud, N., Vranckx, R. and Hatem, S. 2004. MAGUKs: beyond ionic channel anchoring. Med. Sci. 20: 84-88.
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6. Baumgartner, M., Weiss, A., Fritzius, T., Heinrich, J. and Moelling, K. 2009. The PDZ protein MPP2 interacts with c-Src in epithelial cells. Exp. Cell Res. 315: 2888-2898.


## CHROMOSOMAL LOCATION

Genetic locus: MPP2 (human) mapping to 17q21.31.

## PRODUCT

MPP2 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 MPP2 shRNA Plasmid (h): sc-93779-SH and MPP2 shRNA (h) Lentiviral Particles: sc-93779-V as alternate gene silencing products.

For independent verification of MPP2 (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-93779A, sc-93779B and sc-93779C.

## 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

MPP2 siRNA (h) is recommended for the inhibition of MPP2 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.

## GENE EXPRESSION MONITORING

MPP2 (D-9): sc-376913 is recommended as a control antibody for monitoring of MPP2 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor MPP2 gene expression knockdown using RT-PCR Primer: MPP2 (h)-PR: sc-93779-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.