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## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
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SANTA CRUZ BIOTECHNOLOGY, INC.

# MIPP siRNA (m): sc-149440

## BACKGROUND

MIPP (multiple inositol polyphosphate phosphatase) is the only enzyme that is solely responsible for a diverse range of catalytic activities, including the hydrolysis of inositol pentakisphosphate and inositol hexakisphosphate. The structural and functional similarity of MIPP to the chick protein HiPER1 (histidine acid phosphatase) reveals that MIPP contains the catalytic requirement of histidine acid phosphatases. The evolutionary conservation of MIPP in mouse (also called (MMU)Minpp1), human (also called (HSA)MINPP1), chick, plant, and fruit fly within the histidine phosphatase family suggests a significant role for multiple inositol polyphosphatase throughout higher eukaryotes. MIPP is mapped to a region of chromosome 10 that is often mutated in human cancers. Its C-terminal domain contains a signal for retaining soluble proteins in the lumen of the endoplasmic reticulum. MIPP was originally isolated from rat liver and is also highly expressed in rat kidney.

## REFERENCES


1. Craxton, A., Caffrey, J.J., Burkhart, W., Safrany, S.T. and Shears, S.B. 1997. Molecular Cloning and expression of a rat hepatic multiple inositol polyphosphate phosphatase. Biochem. J. 328: 75-81.
2. Chi, H., Tiller, G.E., Dasouki, M.J., Romano, P.R., Wang, J., O'Keefe, R.J., Puzas, J.E., Rosier, R.N. and Reynolds, P.R. 1999. Multiple inositol polyphosphate phosphatase: evolution as a distinct group within the histidine phosphatase family and chromosomal localization of the human and mouse genes to chromosomes 10q23 and 19. Genomics 56: 324-336.
3. Caffrey, J.J., Hidaka, K., Matsuda, M., Hirata, M., and Shears, S.B. 1999. The human and rat forms of multiple inositol polyphosphate phosphatase: functional homology with a histidine acid phosphatase up-regulated during endochondral ossification. FEBS Letts. 442: 99-104.
4. Romano, P.R., Wang, J., O'Keefe, R.J., Puzas, J.E., Rosier, R.N. and Reynolds, P.R. 1998, HiPER1, a phosphatase of the endoplasmic reticulum with a role in chondrocyte maturation. J. Cell Sci. 111: 803-813.
5. Ali, N., Craxton, A. and Shears, S.B. 1993. Hepatic Ins(1,3,4,5)P4 3-phosphatase is compartmentalized inside endoplasmic reticulum. J. Biol. Chem. 268: 6161-6167.


## CHROMOSOMAL LOCATION

Genetic locus: Minpp1 (mouse) mapping to 19 C1.

## PRODUCT

MIPP siRNA (m) 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 MIPP shRNA Plasmid (m): sc-149440-SH and MIPP shRNA (m) Lentiviral Particles: sc-149440-V as alternate gene silencing products.

For independent verification of MIPP (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-149440A, sc-149440B and sc-149440C.

## 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

MIPP siRNA (m) is recommended for the inhibition of MIPP 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.

## GENE EXPRESSION MONITORING

MIPP (A-4): sc-374456 is recommended as a control antibody for monitoring of MIPP 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).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor MIPP gene expression knockdown using RT-PCR Primer: MIPP (m)-PR: sc-149440-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.