

# MPP3 (D-8): sc-377522

## BACKGROUND

MPP3, also known as Discs large homolog 3 (DLG3), is a 585 amino acid protein belonging to the MAGUK family. Proteins in the MAGUK family, including CASK, ZO-1, ZO-2, p55 and MPP2, are known to regulate cell proliferation, intracellular junctions and signaling pathways by interacting with the cytoskeleton. MPP3 contains one guanylate kinase-like domain, one PDZ domain, two L27 domains and one SH3 domain. Via the PDZ domain, MPP3 interacts with the C-terminus of TSLC1. MPP3 has also been found to interact with SR-2A and SR-4.

## REFERENCES

1. Smith, S.A., et al. 1996. Isolation of a gene (DLG3) encoding a second member of the discs-large family on chromosome 17q12-q21. *Genomics* 31: 145-150.
2. Online Mendelian Inheritance in Man, OMIM™. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 601114. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Kim, M., et al. 2001. Proteomic and functional evidence for a P2X<sub>7</sub> receptor signalling complex. *EMBO J.* 20: 6347-6358.
4. Shin, B.K., et al. 2003. Global profiling of the cell surface proteome of cancer cells uncovers an abundance of proteins with chaperone function. *J. Biol. Chem.* 278: 7607-7616.
5. Fukuhara, H., et al. 2003. Association of a lung tumor suppressor TSLC1 with MPP3, a human homologue of *Drosophila* tumor suppressor Dlg. *Oncogene* 22: 6160-6165.
6. Kantardzhieva, A., et al. 2006. MPP3 is recruited to the MPP5 protein scaffold at the retinal outer limiting membrane. *FEBS J.* 273: 1152-1165.

## CHROMOSOMAL LOCATION

Genetic locus: MPP3 (human) mapping to 17q21.31; Mpp3 (mouse) mapping to 11 D.

## SOURCE

MPP3 (D-8) is a mouse monoclonal antibody raised against amino acids 51-108 mapping near the N-terminus of MPP3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MPP3 (D-8) is available conjugated to agarose (sc-377522 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377522 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377522 PE), fluorescein (sc-377522 FITC), Alexa Fluor® 488 (sc-377522 AF488), Alexa Fluor® 546 (sc-377522 AF546), Alexa Fluor® 594 (sc-377522 AF594) or Alexa Fluor® 647 (sc-377522 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377522 AF680) or Alexa Fluor® 790 (sc-377522 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

MPP3 (D-8) is recommended for detection of MPP3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MPP3 siRNA (h): sc-75817, MPP3 siRNA (m): sc-75818, MPP3 shRNA Plasmid (h): sc-75817-SH, MPP3 shRNA Plasmid (m): sc-75818-SH, MPP3 shRNA (h) Lentiviral Particles: sc-75817-V and MPP3 shRNA (m) Lentiviral Particles: sc-75818-V.

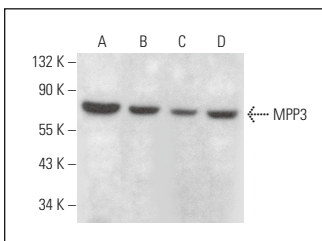
Molecular Weight of MPP3: 70 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HEK293 whole cell lysate: sc-45136 or PC-12 cell lysate: sc-2250.

## RECOMMENDED SUPPORT REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



MPP3 (D-8): sc-377522. Western blot analysis of MPP3 expression in Hep G2 (A), HEK293 (B), RAW 264.7 (C) and PC-12 (D) whole cell lysates.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## 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.