SANTA CRUZ BIOTECHNOLOGY, INC.

# MPP9 (D-15): sc-168628

## BACKGROUND

Progression of cells from interphase to mitosis involves alterations in cell structures and activities. The transition from $G_2$ to M phase is induced by M phase-promoting factor (MPF). In M phase, many proteins are phosphorylated directly by MPF or indirectly by kinases activated by MPF. These M phase phosphoproteins (MPPs), also known as MPHOSPHs, permit disassembly of interphase structures and generation of M phase enzymatic activities and structures. MPP9 (M-phase phosphoprotein 9), also known as MPHOSPH9, is a 1,031 amino acid peripheral membrane protein of the Golgi apparatus that exists as 2 alternatively spliced isoforms. The gene encoding MPP9 maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p.

## REFERENCES


1. Westendorf, J.M., et al. 1994. Cloning of cDNAs for M-phase phosphoproteins recognized by the MPM2 monoclonal antibody and determination of the phosphorylated epitope. Proc. Natl. Acad. Sci. USA 91: 714-718.
2. Matsumoto-Taniura, N., et al. 1996. Identification of novel M phase phosphoproteins by expression cloning. Mol. Biol. Cell 7: 1455-1469.
3. Delgado Carrasco, J., et al. 2001. Achondrogenesis type II-hypochondrogenesis: radiological features. An. Esp. Pediatr. 55: 553-557.
4. Yokoyama, T., et al. 2003. A case of Kniest dysplasia with retinal detachment and the mutation analysis. Am. J. Ophthalmol. 136: 1186-1188.
5. Forzano, F., et al. 2007. A familial case of achondrogenesis type II caused by a dominant COL2A1 mutation and "patchy" expression in the mosaic father. Am. J. Med. Genet. A. 143A: 2815-2820.
6. Lo, F.S., et al. 2009. High resolution melting analysis for mutation detection for PTPN11 gene: applications of this method for diagnosis of Noonan syndrome. Clin. Chim. Acta 409: 75-77.
7. Benussi, D.G., et al. 2009. Trisomy 12p and monosomy 4p: phenotype-genotype correlation. Genet. Test. Mol. Biomarkers 13: 199-204.


## CHROMOSOMAL LOCATION

Genetic locus: MPHOSPH9 (human) mapping to 12q24.31; Mphosph9 (mouse) mapping to 5 F.

## SOURCE

MPP9 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MPP9 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-168628 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MPP9 (D-15) is recommended for detection of MPP9 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other MPP family members.

MPP9 (D-15) is also recommended for detection of MPP9 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for MPP9 siRNA (h): sc-95757, MPP9 siRNA (m): sc-149538, MPP9 shRNA Plasmid (h): sc-95757-SH, MPP9 shRNA Plasmid (m): sc-149538-SH, MPP9 shRNA (h) Lentiviral Particles: sc-95757-V and MPP9 shRNA (m) Lentiviral Particles: sc-149538-V.

Molecular Weight of MPP9: 116 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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 or our catalog for detailed protocols and support products.