

PMPCB (T-15): sc-160672

BACKGROUND

PMPCB (peptidase (mitochondrial processing) beta), also known as MPPB, MPP11, MPPP52 or β -MPP, is a 489 amino acid protein that localizes to the mitochondrial matrix and is a member of the peptidase M16 family. Existing as a heterodimer consisting of α and β subunits, PMPCB cleaves transit peptides from mitochondrial protein precursors. The gene encoding PMPCB is located on human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in some of the genes localized to chromosome 7 have been linked to *Osteogenesis imperfecta*, Williams-Beuren syndrome, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

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3. Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. *Proc. Natl. Acad. Sci. USA* 95: 3781-3785.
4. Eckert, M.A., et al. 2006. The neurobiology of Williams syndrome: cascading influences of visual system impairment? *Cell. Mol. Life Sci.* 63: 1867-1875.
5. Osborne, L.R., et al. 2006. Williams-Beuren syndrome diagnosis using fluorescence *in situ* hybridization. *Methods Mol. Med.* 126:113-128.
6. Reiner, O., et al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. *Neuromolecular Med.* 8: 547-565.
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8. Brezinová, J., et al. 2007. Structural aberrations of chromosome 7 revealed by a combination of molecular cytogenetic techniques in myeloid malignancies. *Cancer Genet. Cytogenet.* 173: 10-16.

CHROMOSOMAL LOCATION

Genetic locus: PMPCB (human) mapping to 7q22.1; Pmpcb (mouse) mapping to 5 A3.

SOURCE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-160672 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PMPCB (T-15) is recommended for detection of PMPCB of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with PMPCA.

PMPCB (T-15) is also recommended for detection of PMPCB in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PMPCB siRNA (h): sc-89841, PMPCB siRNA (m): sc-152351, PMPCB shRNA Plasmid (h): sc-89841-SH, PMPCB shRNA Plasmid (m): sc-152351-SH, PMPCB shRNA (h) Lentiviral Particles: sc-89841-V and PMPCB shRNA (m) Lentiviral Particles: sc-152351-V.

Molecular Weight (predicted) of PMPCB: 54 kDa.

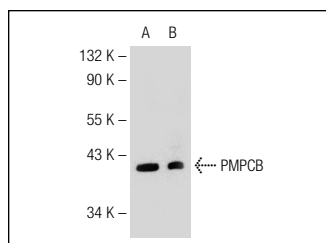
Molecular Weight (observed) of PMPCB: 42 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

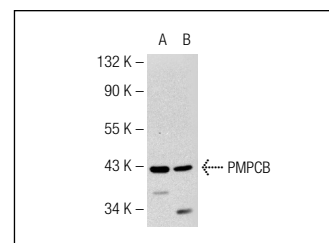
RECOMMENDED SECONDARY REAGENTS

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

DATA



PMPCB (T-15): sc-160672. Western blot analysis of PMPCB expression in HeLa (A) and K-562 (B) whole cell lysates.



PMPCB (T-15): sc-160672. Western blot analysis of PMPCB expression in HeLa (A) and Hep G2 (B) 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.