

PMF-1 (B-5): sc-376988

BACKGROUND

PMF-1 (polyamine-modulated factor 1) is a 205 amino acid protein involved in kinetochore formation. Localized to the nucleus, PMF-1 contains a coiled-coil domain which interacts with the leucine-zipper domain of Nrf2. This interaction regulates the transcription of SSAT, a regulatory enzyme for polyamine catabolism. PMF-1 is also, a component of the MIS12 complex, which is required for kinetochore formation and chromosomal alignment and segregation. PMF-1 is expressed at highest levels in skeletal muscle and heart, with moderate expression in liver and kidney. PMF-1 exists as five isoforms produced by alternative splicing.

REFERENCES

1. Wang, Y., et al. 1999. Cloning and characterization of human polyamine-modulated factor-1, a transcriptional cofactor that regulates the transcription of the spermidine/spermine N¹-acetyltransferase gene. *J. Biol. Chem.* 274: 22095-22101.
2. Wang, Y., et al. 2001. Characterization of the interaction between the transcription factors human polyamine modulated factor (PMF-1) and NF-E2-related factor 2 (Nrf-2) in the transcriptional regulation of the spermidine/spermine N¹-acetyltransferase (SSAT) gene. *Biochem. J.* 355: 45-49.
3. Wang, Y., et al. 2002. Polyamine-modulated factor 1 binds to the human homologue of the 7 α subunit of the *Arabidopsis* COP9 signalosome: implications in gene expression. *Biochem. J.* 366: 79-86.
4. Cheeseman, I.M., et al. 2004. A conserved protein network controls assembly of the outer kinetochore and its ability to sustain tension. *Genes Dev.* 18: 2255-2268.

CHROMOSOMAL LOCATION

Genetic locus: PMF1 (human) mapping to 1q22; Pmf1 (mouse) mapping to 3 F1.

SOURCE

PMF-1 (B-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 113-145 within an internal region of PMF-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PMF-1 (B-5) is available conjugated to agarose (sc-376988 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376988 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376988 PE), fluorescein (sc-376988 FITC), Alexa Fluor® 488 (sc-376988 AF488), Alexa Fluor® 546 (sc-376988 AF546), Alexa Fluor® 594 (sc-376988 AF594) or Alexa Fluor® 647 (sc-376988 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376988 AF680) or Alexa Fluor® 790 (sc-376988 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376988 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

PMF-1 (B-5) is recommended for detection of PMF-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 PMF-1 siRNA (h): sc-78780, PMF-1 siRNA (m): sc-106424, PMF-1 shRNA Plasmid (h): sc-78780-SH, PMF-1 shRNA Plasmid (m): sc-106424-SH, PMF-1 shRNA (h) Lentiviral Particles: sc-78780-V and PMF-1 shRNA (m) Lentiviral Particles: sc-106424-V.

Molecular Weight of PMF-1 isoforms: 19/23/24 kDa.

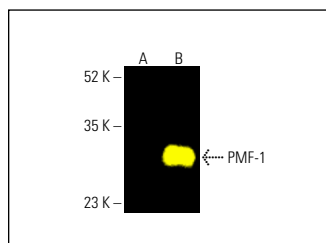
Positive Controls: PMF-1 (m): 293T lysate: sc-122657.

RECOMMENDED SUPPORT REAGENTS

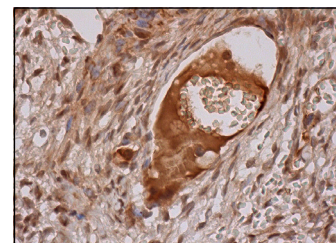
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PMF-1 (B-5): sc-376988. Fluorescent western blot analysis of PMF-1 expression in non-transfected: sc-117752 (A) and mouse PMF-1 transfected: sc-122657 (B) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG₁ BP-CFL 488: sc-533661.



PMF-1 (B-5): sc-376988. Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing nuclear and cytoplasmic staining of ovarian stroma cells and plasma staining of blood vessels.

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.

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