

# PMF-1 (D-6): sc-376245

## 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

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- Wang, Y., et al. 2002. Polyamine-modulated factor 1 binds to the human homologue of the 7a subunit of the *Arabidopsis* COP9 signalosome: implications in gene expression. *Biochem. J.* 366: 79-86.
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- Obuse, C., et al. 2004. A conserved Mis12 centromere complex is linked to heterochromatic HP1 and outer kinetochore protein Zwint-1. *Nat. Cell Biol.* 6: 1135-1141.
- Kline, S.L., et al. 2006. The human Mis12 complex is required for kinetochore assembly and proper chromosome segregation. *J. Cell Biol.* 173: 9-17.
- Hyvönen, M.T., et al. 2006. Polyamine-regulated unproductive splicing and translation of spermidine/spermine N<sup>1</sup>-acetyltransferase. *RNA* 12: 1569-1582.
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## CHROMOSOMAL LOCATION

Genetic locus: PMF1 (human) mapping to 1q22.

## SOURCE

PMF-1 (D-6) is a mouse monoclonal antibody raised against amino acids 76-180 mapping within an internal region of PMF-1 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.

## APPLICATIONS

PMF-1 (D-6) is recommended for detection of PMF-1 of 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 PMF-1 siRNA (h): sc-78780, PMF-1 shRNA Plasmid (h): sc-78780-SH and PMF-1 shRNA (h) Lentiviral Particles: sc-78780-V.

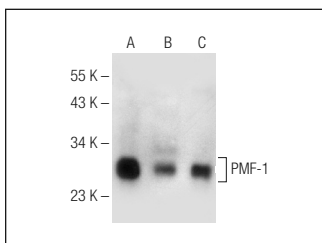
Molecular Weight of PMF-1 isoforms: 19/23/24 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181, MCF7 whole cell lysate: sc-2206 or human heart extract: sc-363763.

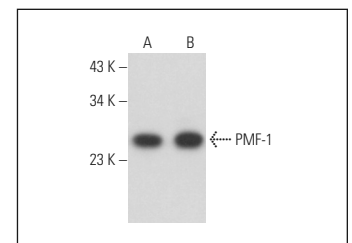
## RECOMMENDED SUPPORT REAGENTS

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



PMF-1 (D-6): sc-376245. Western blot analysis of PMF-1 expression in Jurkat nuclear extract (A), human heart tissue extract (B) and Hep G2 whole cell lysate (C).



PMF-1 (D-6): sc-376245. Western blot analysis of PMF-1 expression in MCF7 (A) and NTERA-2 cl.D1 (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.