SANTA CRUZ BIOTECHNOLOGY, INC.

PMS7 (N-12): sc-138532

BACKGROUND

PMS7 (postmeiotic segregation increased protein 7), also known as PMS2P5 (postmeiotic segregation increased 2 pseudogene 5), PMS2L5 (postmeiotic segregation increased 2-like protein 5) or PMS4 (postmeiotic segregation increased protein 4), is a 134 amino acid protein that belongs to the DNA mismatch repair mutL/hexB family. Participating in ATP binding and in mismatched DNA binding, PMS7 is likely a predominant target for regulation by p53. PMS7 is reactive to DNA damage and p53 activation in normal human fibroblasts, and contains p53-response elements within its first intron. PMS7 may function as a sensor in DNA repair mechanisms and may act as a critical determinant for the decision between cell-cycle arrest and apoptosis. The gene that encodes PMS7 maps to human chromosome 7q11.23.

REFERENCES

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5. Chen, J., et al. 2005. Identification of the mismatch repair genes PMS2 and MLH1 as p53 target genes by using serial analysis of binding elements. Proc. Natl. Acad. Sci. USA 102: 4813-4818.
6. Shpakovskii, D.G., et al. 2006. Human PMS2 gene family: origin, molecular evolution, and biological implications. Dokl. Biochem. Biophys. 408: 175-179.
7. Galetzka, D., et al. 2007. Expression of somatic DNA repair genes in human testes. J. Cell. Biochem. 100: 1232-1239.

CHROMOSOMAL LOCATION

Genetic locus: PMS2P5/LOC100132832 (human) mapping to 7q11.23.

SOURCE

PMS7 (N-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of PMS7 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138532 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-138532 X, 200 µg/0.1 ml.

APPLICATIONS

PMS7 (N-12) is recommended for detection of PMS7 and LOC100132832 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other PMS family members.

Suitable for use as control antibody for PMS7 siRNA (h): sc-89465, PMS7 shRNA Plasmid (h): sc-89465-SH and PMS7 shRNA (h) Lentiviral Particles: sc-89465-V.

PMS7 (N-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of PMS7: 15 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.