

# Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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## Zuschläge

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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#### SANTA CRUZ BIOTECHNOLOGY, INC.

## PMS1 (m): 293T Lysate: sc-122666



### BACKGROUND

The finding that mutations in DNA mismatch repair genes are associated with hereditary nonpolyposis colorectal cancer (HNPCC) has resulted in considerable interest in the understanding of the mechanism of DNA mismatch repair. Initially, inherited mutations in the MSH2 and MLH1 homologs of the bacterial DNA mismatch repair genes MutS and MutL were demonstrated at high frequency in HNPCC and were shown to be associated with microsatellite instability. The demonstration that 10 to 45% of pancreatic, gastric, breast, ovarian and small cell lung cancers also display microsatellite instability has been interpreted to suggest that DNA mismatch repair is not restricted to HNPCC tumors but is a common feature in tumor initiation or progression. Two additional homologs of the prokaryotic MutL gene, designated PMS1 and PMS2, have been identified and shown to be mutated in the germline of HNPCC patients.

#### REFERENCES

- 1. Peltomäki, P., et al. 1993. Genetic mapping of a locus predisposing to human colorectal cancer. Science 260: 810-812.
- Ionov, Y., et al. 1993. Ubiquitous somatic mutations in simple repeated sequences reveal a new mechanism for colonic carcinogenesis. Nature 363: 558-561.
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- 4. Prolla, T.A., et al. 1994. MLH1, Pms1, and Msh2 interactions during the initation of DNA mismatch repair in yeast. Science 265: 1091-1092.
- 5. Palombo, F., et al. 1994. Mismatch repair and cancer. Nature 367: 417-418.
- Bronner, C.E., et al. 1994. Mutation in the DNA mismatch repair gene homologue hMLH1 is associated with hereditary non-polyposis colon cancer. Nature 368: 258-261.
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- 8. Ben-Ari, G. et al. 2006. Four linked genes participate in controlling sporulation efficiency in budding yeast. PLoS Genet. 2: E195.
- Cannavo, E. et al. 2007. Characterization of the interactome of the human Mut<sub>L</sub> homologues MLH1, PMS1, and PMS2. J. Biol. Chem. 282: 2976-2986.

#### CHROMOSOMAL LOCATION

Genetic locus: Pms1 (mouse) mapping to C1.1.

#### PRODUCT

PMS1 (m): 293T Lysate represents a lysate of mouse PMS1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

#### **APPLICATIONS**

PMS1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive PMS1 antibodies. Recommended use: 10-20  $\mu$ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

#### **STORAGE**

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.