



## Rabbit Anti-PMS1 antibody

SL8579R

<b>Product Name:</b>	PMS1
<b>Chinese Name:</b>	Tumour错配修复基因PMS1抗体
<b>Alias:</b>	DNA mismatch repair protein PMS1; HNPCC3; hPMS1; Human homolog of yeast mutL; Mismatch repair gene PMSL1; pms1; PMS1 postmeiotic segregation increased 1 (S. cerevisiae); PMS1 postmeiotic segregation increased 1; PMS1 protein homolog 1; PMS1_HUMAN; PMSL1; Rhabdomyosarcoma antigen MU RMS 40.10B; Rhabdomyosarcoma antigen MU RMS 40.10E.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Cow,Horse,Sheep,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:50-200 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	106kDa
<b>Cellular localization:</b>	The nucleus
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human PMS1:245-350/932
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	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.

**Function:**

Probably involved in the repair of mismatches in DNA.

**Subunit:**

The MutL-beta complex is a heterodimer of PMS1 and MLH1.

**Subcellular Location:**

Nucleus.

**DISEASE:**

Defects in PMS1 are the cause of hereditary non-polyposis colorectal cancer type 3 (HNPCC3) [MIM:600258]. Mutations in more than one gene locus can be involved alone or in combination in the production of the HNPCC phenotype (also called Lynch syndrome). Most families with clinically recognized HNPCC have mutations in either MLH1 or MSH2 genes. HNPCC is an autosomal, dominantly inherited disease associated with marked increase in cancer susceptibility. It is characterized by a familial predisposition to early onset colorectal carcinoma (CRC) and extra-colonic cancers of the gastrointestinal, urological and female reproductive tracts. HNPCC is reported to be the most common form of inherited colorectal cancer in the Western world, and accounts for 15% of all colon cancers. Cancers in HNPCC originate within benign neoplastic polyps termed adenomas. Clinically, HNPCC is often divided into two subgroups. Type I: hereditary predisposition to colorectal cancer, a young age of onset, and carcinoma observed in the proximal colon. Type II: patients have an increased risk for cancers in certain tissues such as the uterus, ovary, breast, stomach, small intestine, skin, and larynx in addition to the colon. Diagnosis of classical HNPCC is based on the Amsterdam criteria: 3 or more relatives affected by colorectal cancer, one a first degree relative of the other two; 2 or more generation affected; 1 or more colorectal cancers presenting before 50 years of age; exclusion of hereditary polyposis syndromes. The term 'suspected HNPCC' or 'incomplete HNPCC' can be used to describe families who do not or only partially fulfill the Amsterdam criteria, but in whom a genetic basis for colon cancer is strongly suspected.

**Similarity:**

Belongs to the DNA mismatch repair MutL/HexB family.  
Contains 1 HMG box DNA-binding domain.

**SWISS:**  
P54277

**Gene ID:**  
5378

**Database links:**

[Entrez Gene: 5378](#)Human

[Entrez Gene: 227099](#)Mouse

[Entrez Gene: 494322](#)Rat

[NCBI: 4505911](#)Human

[Omim: 600258](#)Human

[SwissProt: P54277](#)Human

[Unigene: 111749](#)Human

[Unigene: 60499](#)Mouse

[Unigene: 47945](#)Rat

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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