

PMS2 Rabbit mAb

Catalog No: #52062

Package Size: #52062-1 50ul #52062-2 100ul

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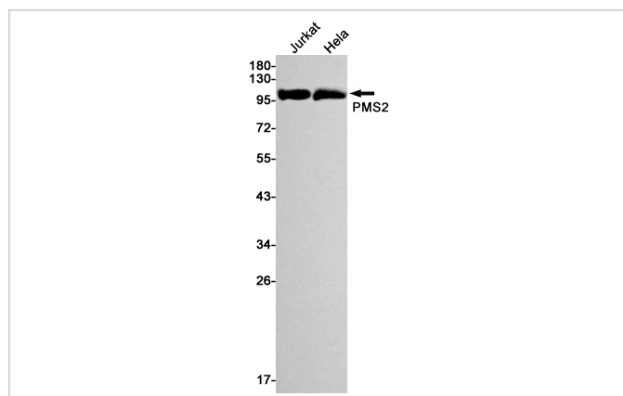
Description

Product Name	PMS2 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	S06-5G3
Isotype	Rabbit IgG
Purification	Affinity Purified
Applications	WB
Species Reactivity	Human
Immunogen Description	A synthetic peptide of human PMS2
Conjugates	Unconjugated
Modification	Unmodification
Other Names	DNA mismatch repair gene; DNA mismatch repair protein PMS2; HNPCC4; PMS1 protein homolog 2;
Accession No.	Swiss-Prot:P54278GeneID:5395
Uniprot	P54278
GeneID	5395
Calculated MW	Calculated MW: 96 kDa; Observed MW: 96 kDa
Concentration	0.3 mg/ml
Formulation	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Application Details

WB: 1/2000;

Images



Western blot detection of PMS2 in Jurkat, HeLa cell lysates using PMS2 Rabbit mAb(1:1000 diluted). Predicted band size: 96kDa. Observed band size: 96kDa.

Background

Swiss-Prot Acc.P54278.Component of the post-replicative DNA mismatch repair system (MMR). Heterodimerizes with MLH1 to form MutL alpha. DNA repair is initiated by MutS alpha (MSH2-MSH6) or MutS beta (MSH2-MSH3) binding to a dsDNA mismatch, then MutL alpha is recruited to the heteroduplex. Assembly of the MutL-MutS-heteroduplex ternary complex in presence of RFC and PCNA is sufficient to activate endonuclease activity of PMS2. It introduces single-strand breaks near the mismatch and thus generates new entry points for the exonuclease EXO1 to degrade the strand containing the mismatch. DNA methylation would prevent cleavage and therefore assure that only the newly mutated DNA strand is going to be corrected. MutL alpha (MLH1-PMS2) interacts physically with the clamp loader subunits of DNA polymerase III, suggesting that it may play a role to recruit the DNA polymerase III to the site of the MMR. Also implicated in DNA damage signaling, a process which induces cell cycle arrest and can lead to apoptosis in case of major DNA damages.

Note: This product is for in vitro research use only