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Anti-PMS2 Antibody
Rabbit polyclonal antibody to PMS2
Catalog # AP61222

Specification

Anti-PMS2 Antibody - Product Information

Application	**WB, IH**
Primary Accession	P54278
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**95797**

Anti-PMS2 Antibody - Additional Information

Gene ID 5395

Other Names
PMS2CL; Protein PMS2CL; PMS2-C terminal-like protein; PMS2; PMSL2; Mismatch repair endonuclease PMS2; DNA mismatch repair protein PMS2; PMS1 protein homolog 2

Target/Specificity
Recognizes endogenous levels of PMS2 protein.

Dilution
WB~~WB (1/500 - 1/1000), IH (1/50 - 1/200)
IH~~WB (1/500 - 1/1000), IH (1/50 - 1/200)

Format
Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

Anti-PMS2 Antibody - Protein Information

Name PMS2 (HGNC:9122)

Function
Component of the post-replicative DNA mismatch repair system (MMR) (PubMed:30653781, PubMed:35189042). 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. Possesses an ATPase activity, but in the absence of gross structural changes, ATP hydrolysis may not be necessary for proficient mismatch repair (PubMed:35189042).

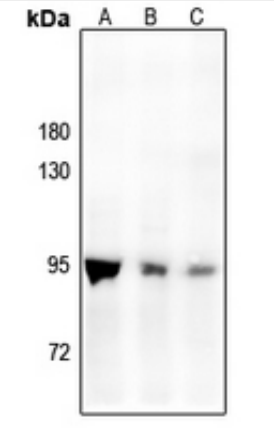
Cellular Location
Nucleus

Anti-PMS2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-PMS2 Antibody - Images



Western blot analysis of PMS2 expression in Myla2059 (A), MCF7 (B), A375 (C) whole cell lysates.

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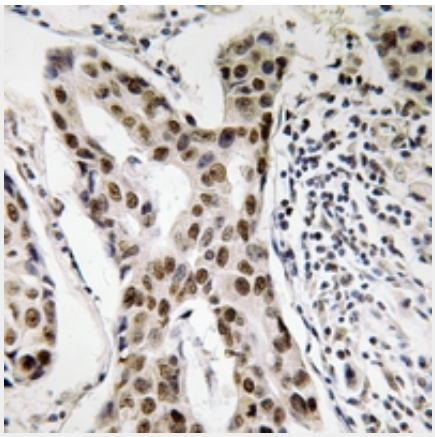

Immunohistochemical analysis of PMS2 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Anti-PMS2 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human PMS2. The exact sequence is proprietary.