

PMS2 Blocking Peptide
Catalog # PBV10192b**Specification**

PMS2 Blocking Peptide - Product Information

Primary Accession	P54278
Gene ID	5395
Calculated MW	95797

PMS2 Blocking Peptide - Additional Information**Gene ID** 5395**Application & Usage**

The peptide is used for blocking the antibody activity of active PMS2. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30 minutes at 37°C

Other Names

Mismatch repair endonuclease PMS2, 3.1.-., DNA mismatch repair protein PMS2, PMS1 protein homolog 2, PMS2, PMSL2

Target/Specificity

PMS2

Formulation

50 µg (0.2 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 0.1% BSA and 0.02% thimerosal.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

PMS2 Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

PMS2 Blocking Peptide - 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

PMS2 Blocking Peptide - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PMS2 Blocking Peptide - Images