Product Name: **KO-Validated PMS2 Recombinant Rabbit Monoclonal Antibody**
Catalog #: **KVAb00099**
For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 95.8kDa

Antigen Information

Gene Name	PMS2
Alternative Names	PMS2; PMS1 Homolog 2, Mismatch Repair System Component; HNPCC4; PMS-2; PMSL2; MLH4; PMS1 Homolog 2, Mismatch Repair Protein; Mismatch Repair Endonuclease PMS2; DNA Mismatch Repair Protein PMS2; PMS1 Protein Homolog 2; H_DJ0042M02.9; PMS2 Postmeiotic Segregation Increased 2 (S. Cerevisiae); Postmeiotic Segregation Increased (S. Cerevisiae) 2; PMS2 Postmeiotic Segregation Increased 2; EC 3.1.-.-; LYNCH4; MMRCS4; PMS2CL
Gene ID	5395.0
SwissProt ID	P54278
Immunogen	A synthesized peptide derived from human PMS2

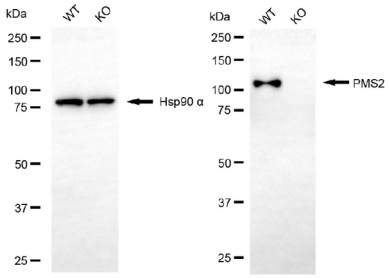
Background

The protein encoded by this gene is a key component of the mismatch repair system that functions to correct DNA mismatches and small insertions and deletions that can occur during DNA replication and homologous recombination. This protein forms heterodimers with the gene product of the mutL homolog 1 (MLH1) gene to form the MutL-alpha heterodimer. The MutL-alpha heterodimer possesses an endonucleolytic activity that is activated following recognition of mismatches and insertion/deletion loops by the MutS-alpha and MutS-beta heterodimers, and is necessary for removal of the mismatched DNA. There is a DQHA(X)2E(X)4E motif found at the C-terminus of the protein encoded by this gene that forms part of the active site of the nuclease. Mutations in this gene have been associated with hereditary nonpolyposis colorectal cancer (HNPCC; also known as Lynch syndrome) and Turcot syndrome. [provided by RefSeq, Apr 2016]

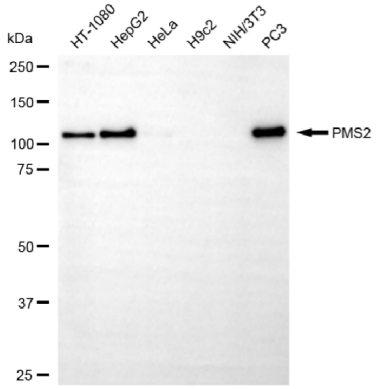
Research Area

Epigenetics and Nuclear Signaling

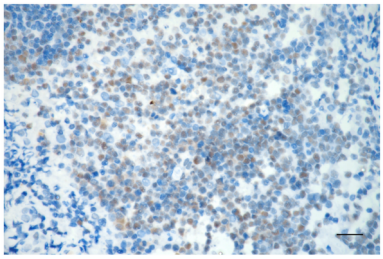
Image Data



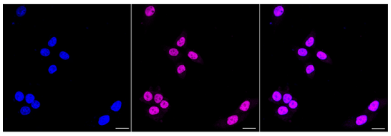
Western blotting analysis using PMS2 antibody (KVAb00099). PMS2 expression in wild-type (WT) and PMS2 knockout (KO) HT-1080 cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with PMS2 antibody (KVAb00099, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



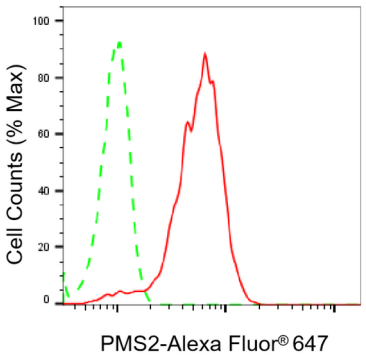
Western blotting analysis using PMS2 antibody (KVAb00099). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with PMS2 antibody (KVAb00099, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunohistochemistry was performed on paraffin-embedded human tonsillitis using PMS2 antibody (KVAb00099, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of HepG2 cells with PMS2 antibody (KVAb00099, 1:1,000). Nuclei were stained blue with DAPI; PMS2 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 μm.



Flow cytometric analysis of PMS2 expression in HepG2 cells using PMS2 antibody (KVAb00099, 1:2,000). Green, isotype control; red, PMS2.