

ARG66762
anti-PMS2 antibody [SQab20195]Package: 100 µl
Store at: -20°C

Summary

Product Description	Recombinant Rabbit Monoclonal antibody [SQab20195] recognizes PMS2
Tested Reactivity	Hu
Tested Application	IHC-P
Host	Rabbit
Clonality	Monoclonal
Clone	SQab20195
Isotype	IgG
Target Name	PMS2
Species	Human
Immunogen	Synthetic peptide within aa. 1-100 of Human PMS2.
Conjugation	Un-conjugated
Alternate Names	PMS2CL; DNA mismatch repair protein PMS2; HNPCC4; PMS1 protein homolog 2; MLH4; EC 3.1.-.-; Mismatch repair endonuclease PMS2; PMSL2

Application Instructions

Application table	Application	Dilution
	IHC-P	1:100 - 1:200
Application Note	IHC-P: Antigen Retrieval: Heat mediation was performed in Tris/EDTA buffer (pH 9.0). * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Esophagus tissue.	

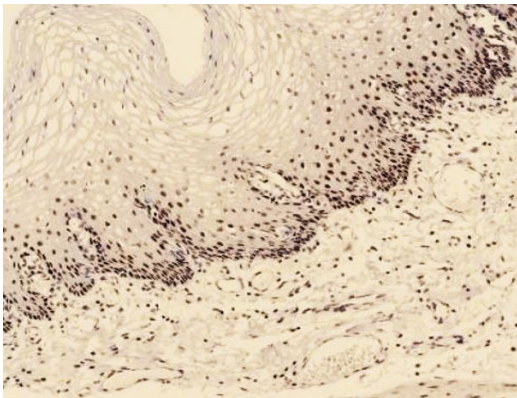
Properties

Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS, 0.01% Sodium azide, 40% Glycerol and 0.05% BSA.
Preservative	0.01% Sodium azide
Stabilizer	40% Glycerol and 0.05% BSA
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	PMS2
Gene Full Name	PMS1 homolog 2, mismatch repair system component
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]
Function	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. [UniProt]
Calculated Mw	96 kDa
Cellular Localization	Nucleus. [UniProt]

Images



ARG66762 anti-PMS2 antibody [SQab20195] IHC-P image

Immunohistochemistry: Formalin/PFA-fixed and paraffin-embedded Human esophagus tissue. Antigen Retrieval: Heat mediation was performed in Tris/EDTA buffer (pH 9.0). The tissue section was stained with ARG66762 anti-PMS2 antibody [SQab20195] at 18°C - 25°C for 30 minutes.