Datasheet for ABIN969285

anti-MLH1 antibody (AA 381-483)

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Overview

Quantity:	100 µL
Target:	MLH1
Binding Specificity:	AA 381-483
Reactivity:	Human, Monkey
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This MLH1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunocytochemistry (ICC)

Product Details

Immunogen:	Purified recombinant fragment of MLH1 (aa381-483) expressed in E. coli.
Clone:	4C9C7
Isotype:	IgG1
Purification:	purified

Target Details

Target:	MLH1
Alternative Name:	MLH1 (MLH1 Products)
Background:	Description: DNA-mismatch repair (MMR), a conserved process that involves correcting errors made during DNA synthesis, is crucial to the maintenance of genomic integrity. Lack of a

Target Details

	functional DNA-mismatch repair pathway is a common characteristic of several different types of human cancers, either due to an MMR gene mutation or promoter-methylation gene silencing. MLH1 is a human homolog of the E. coli DNA mismatch repair gene mutL, consistent with the characteristic alterations in microsatellite sequences (RER+ phenotype) found in hereditary nonpolyposis colon cancer (HNPCC). MLH1 is an integral part of the protein complex responsible for mismatch repair expressed in lymphocytes, heart, colon, breast, lung, spleen, testis, prostate, thyroid and gall bladder, and is methylated in several ovarian tumors. Loss of MLH1 protein expression is associated with a mutated phenotype, microsatellite instability and a predisposition to cancer. In hereditary nonpolyposis colorectal cancer (HNPCC), an autosomal dominant inherited cancer syndrome that signifies a high risk of colorectal and various other types of cancer, the MLH1 gene exhibits a pathogenic mutation. Inactivation of the MLH1 gene causes genome instability and predisposition to cancer. MLH1 also plays a role in meiotic recombination. Aliases: FCC2, COCA2, HNPCC
Molecular Weight:	85 kDa
Gene ID:	4292
HGNC:	4292
Pathways:	DNA Damage Repair, Production of Molecular Mediator of Immune Response

Application Details

Application Notes:	ELISA: 1:10000, WB: 1:500 - 1:2000, IHC: 1:200 - 1:1000, ICC: 1:200 - 1:1000
Restrictions:	For Research Use only

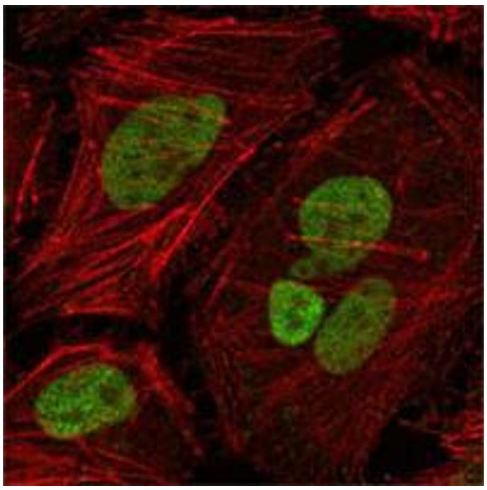
Handling

Format:	Liquid
Buffer:	Ascitic fluid containing 0.03 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C/-20 °C
Storage Comment:	4°C, -20°C for long term storage

Publications

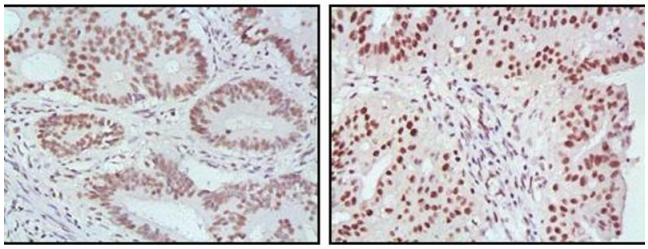
Product cited in: Jacques, Pereira, Maia, Cuzzi, Ramos-e-Silva: "Expression of cytokeratins 10, 13, 14 and 19 in oral lichen planus." in: **Journal of oral science**, Vol. 51, Issue 3, pp. 355-65, (2009) (PubMed).

Images



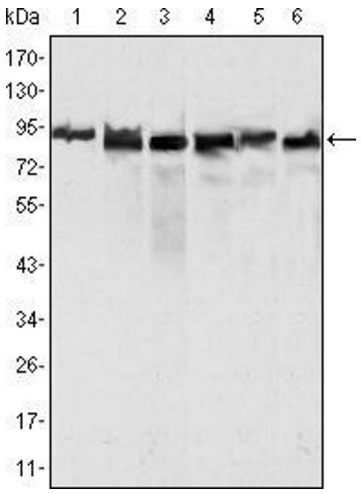
Immunofluorescence

Image 1. Confocal immunofluorescence analysis of Hela cells using MLH1 mouse mAb (green), showing nuclear localization. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Immunohistochemistry

Image 2. Immunohistochemical analysis of paraffin-embedded human rectum cancer (left) and ovarian cancer (right) tissues, showing nuclear localization with DAB staining using MLH1 mouse mAb.



Western Blotting

Image 3. Western blot analysis using MLH1 mouse mAb against Hela (1), MCF-7 (2) and A549 (3), Jurkat (4), 2R75 (5) and COS (6) cell lysate.