Datasheet for ABIN6257325

anti-MLH1 antibody (Internal Region)

3 Images

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Overview

Quantity:	100 µL
Target:	MLH1
Binding Specificity:	Internal Region
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MLH1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	A synthesized peptide derived from human MLH1, corresponding to a region within the internal amino acids.
Isotype:	IgG
Specificity:	MLH1 Antibody detects endogenous levels of total MLH1.
Predicted Reactivity:	Pig,Horse,Sheep,Rabbit,Chicken
Purification:	The antiserum was purified by peptide affinity chromatography using SulfoLink™ Coupling Resin (Thermo Fisher Scientific).

Target Details

Target:	MLH1

Target Details

Alternative Name:	MLH1 (MLH1 Products)
Background:	Description: Heterodimerizes with PMS2 to form MutL alpha, a component of the post-replicative DNA mismatch repair system (MMR). DNA repair is initiated by MutS alpha (MSH2-MSH6) or MutS beta (MSH2-MSH6) 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. Heterodimerizes with MLH3 to form MutL gamma which plays a role in meiosis. Gene: MLH1
Molecular Weight:	85 kDa
Gene ID:	4292
UniProt:	P40692
Pathways:	DNA Damage Repair, Production of Molecular Mediator of Immune Response

Application Details

Application Notes:	WB 1:500-1:1000, IF/ICC 1:100-1:500, ELISA(peptide) 1:20000-1:40000
Restrictions:	For Research Use only

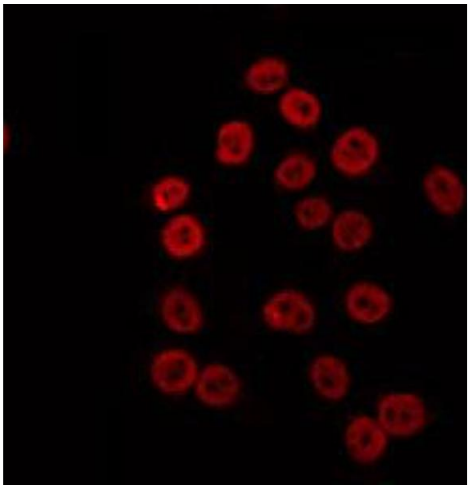
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

Handling

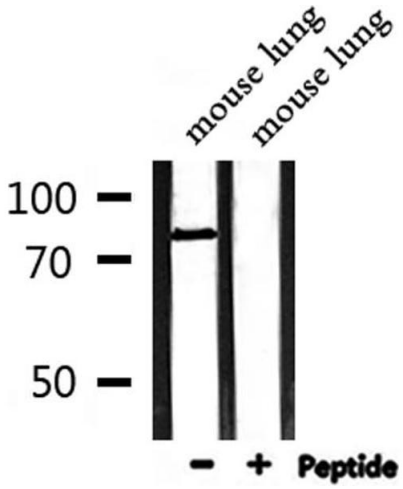
	should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20 °C. Stable for 12 months from date of receipt.
Expiry Date:	12 months

Images



Immunofluorescence (fixed cells)

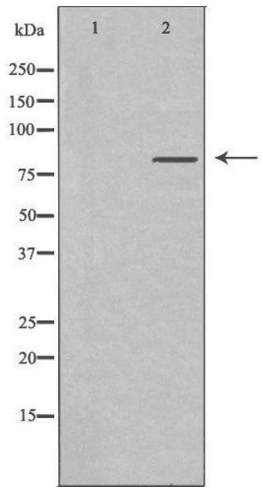
Image 1. ABIN6274692 staining K562 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25°C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



Western Blotting

Image 2. Western blot analysis of extracts from mouse lung, using MLH1 Antibody.

Images



Western Blotting

Image 3. Western blot analysis of extracts from K562 cells, using MLH1 antibody.The lane on the left is treated with the antigen-specific peptide.