Recombinant MLH1 (MutL Homolog 1) / HNPCC Antibody

Mouse Monoclonal Antibody [Clone MLH1/6467]

Catalog No	Format	Size
4292-MSM7-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
4292-MSM7-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
4292-MSM7-P1ABX	Purified Ab WITHOUT BSA and Azide at 1.0mg/ml	100 ug

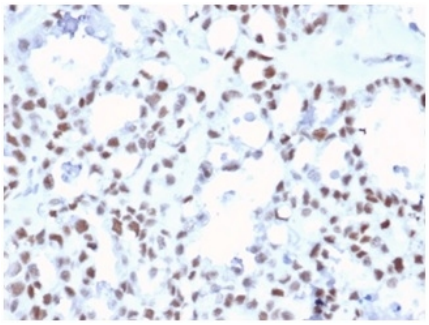
Applications	Tested Dillution	Note
Immunohistochemistry (IHC)	1-2ug/ml	30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes

Product Details

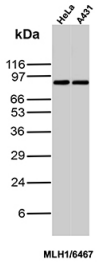
Clone	MLH1/6467
Gene Name	MLH1
Immunogen	Recombinant full-length human MLH1 protein
Host	Mouse
Clonality	Monoclonal
Isotype / Light Chain	IgG1 / Kappa
Mol. Weight of Antigen	85kDa
Cellular Localization	Chromosome, Nucleus
Species Reactivity	Human
Positive Control	Human tonsil or colon carcinoma. HeLa, A431

**Optimal dilution for a specific application should be determined.*

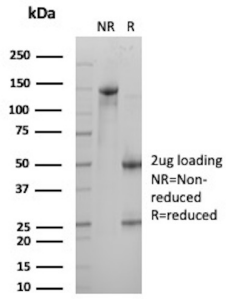
Product Images for Recombinant MLH1 (MutL Homolog 1) / HNPCC Antibody



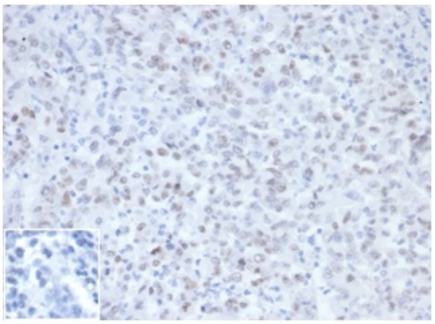
Formalin-fixed, paraffin-embedded human ovarian carcinoma stained with MLH1 / MutL Homolog 1 Mouse Monoclonal Antibody (MLH1/6467).



Western blot analysis of HeLa and A431cell lysates using MLH1 Mouse Monoclonal Antibody (MLH1/6467).



SDS-PAGE Analysis of Purified DNA mismatch repair protein Mlh1 Recombinant Mouse Monoclonal Antibody (MLH1/6467). Confirmation of Purity and Integrity of Antibody.



IHC analysis of FFPE Lynch Syndrome / Hereditary Non-Polyposis Colorectal Cancer (HNPCC). MLH1/6467at 2ug/ml in PBS, 30 min RT. HIER: Tris/EDTA, pH9.0, 45min. 2°C: HRP-polymer, 30min. DAB, 5min.Inset: PBS instead of primary, secondary control.

Specificity & Comments

This MAb recognizes a protein of 83kDa, identified as MLH1. Defects in MLH1 are the cause of hereditary non-polyposis colorectal cancer type 2 (HNPCC2).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.

Supplied As

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage and Stability

Antibody with azide - store at 2 to 8 °C. Antibody without azide - store at -20 to -80 °C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

Research Areas

Colon Cancer, Infectious Disease, Nuclear Marker, Transcription Factors

Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis.There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.