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Anti-MLF1 Interacting Protein (internal) (RABBIT) Antibody

MLF1 Antibody
Catalog # ASR5346

Specification

Anti-MLF1 Interacting Protein (internal) (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Human**
Reactivity	**Chimpanzee, Human, Bovine, Dog**
Clonality	**Polyclonal**
Application	**WB, IHC, E, I, LCI**
Application Note	**This affinity purified antibody has been tested for use in ELISA and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 65 kDa in size corresponding to MLF1IP protein by western blotting in the appropriate cell lysate or extract.**
Physical State	**Liquid (sterile filtered)**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids surrounding Thr78 of human MLF1IP protein.**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-MLF1 Interacting Protein (internal) (RABBIT) Antibody - Additional Information

Gene ID 79682

Other Names
79682

Purity
This affinity purified antibody is directed against human MLF1IP protein. The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. A BLAST analysis was used to suggest cross-reactivity with MLF1IP protein from human, dog, bovine and chimpanzee based on 100% homology with the immunizing sequence. Expect partial reactivity with homologues from rat and mouse (90% homology). Reactivity against homologues from other sources is not known. This antibody reacts with MLF1IP protein that is either phosphorylated or non-phosphorylated at Thr78.

Storage Condition
Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after

standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-MLF1 Interacting Protein (internal) (RABBIT) Antibody - Protein Information

Name CENPU

Synonyms ICEN24, KLIP1, MLF1IP, PBIP1

Function
Component of the CENPA-NAC (nucleosome-associated) complex, a complex that plays a central role in assembly of kinetochore proteins, mitotic progression and chromosome segregation. The CENPA-NAC complex recruits the CENPA-CAD (nucleosome distal) complex and may be involved in incorporation of newly synthesized CENPA into centromeres. Plays an important role in the correct PLK1 localization to the mitotic kinetochores. A scaffold protein responsible for the initial recruitment and maintenance of the kinetochore PLK1 population until its degradation. Involved in transcriptional repression.

Cellular Location
Cytoplasm. Nucleus. Chromosome, centromere, kinetochore. Note=Localizes in the kinetochore domain of centromeres Colocalizes with PLK1 at the interzone between the inner and the outer kinetochore plates

Tissue Location
Expressed at high levels in the testis, fetal liver, thymus, bone marrow and at lower levels in the lymph nodes, placenta, colon and spleen. Present in all cell lines examined, including B-cells, T-cells, epithelial cells and fibroblast cells Expressed at high levels in glioblastoma cell lines

Anti-MLF1 Interacting Protein (internal) (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-MLF1 Interacting Protein (internal) (RABBIT) Antibody - Images

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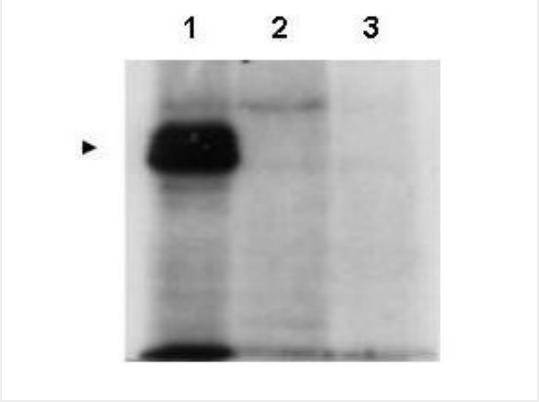

Western blot using Rockland's affinity purified anti-MLF1IP antibody shows detection of MLF1IP (arrowhead) in HeLa cells transfected with ZZ-tagged MLF1IP (Lane 1). Lane 2 is lysate from non-transfected HeLa cells, and Lane 3 is lysate from HeLa cells containing a knock-out mutation for PBIP1/MLF1IP. Personal Communication, Kyung S. Lee, CCR-NCI, Bethesda, MD.

Anti-MLF1 Interacting Protein (internal) (RABBIT) Antibody - Background

This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. Myeloid leukemia factor-1 (MLF1) Interacting Protein (also known as PBIP1, MLF1IP1, KLIP1 or KSHV latent nuclear antigen interacting protein 1) is a novel polo-like kinase 1 (Plk1) substrate. Plk1 phosphorylation of MLF1IP induces ubiquitination and degradation of MLF1IP prior to the metaphase/anaphase transition. Several Plk1-dependent phosphorylation sites have been identified on MLF1IP by mass spectrometry. Mutations of these sites stabilize MLF1IP and inhibit mitotic progression. Subsequent in vitro and in vivo MLF1IP phosphorylation and stability assays have revealed that phosphorylation of Thr78 is critical for triggering Plk1-dependent MLF1IP degradation. Expression of a non-degradable Thr78Ala mutant was sufficient to induce a mitotic block. Timely phosphorylation of MLF1IP on Thr78 by Plk1 is critical for eliminating the MLF1IP-imposed mitotic block prior to anaphase onset. MLF1IP is speculated to be a novel tumor suppressor, whose function is required for proper sister-chromatid separation. Loss of MLF1IP function may result in improper segregation of chromosomes and genomic instability, thus promoting tumorigenesis.