

Anti-MLF1IP / PBIP1 (RABBIT) Antibody
MLF1IP / PBIP1 Antibody
Catalog # ASR5435

Specification

Anti-MLF1IP / PBIP1 (RABBIT) Antibody - Product Information

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human
Clonality	Polyclonal
Application	WB, IHC, E, I, LCI
Application Note	This affinity purified antibody has been tested for use in ELISA, Immunohistochemistry, 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 418 residue recombinant protein corresponding to the carboxy terminal end of human MLF1IP protein.
Preservative	0.01% (w/v) Sodium Azide

Anti-MLF1IP / PBIP1 (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, chimpanzee (98%), horse (72%), bovine (69%), dog (65%), mouse (56%), rat (55%) and chicken (47%) sources based on homology with the immunizing sequence. Reactivity against homologues from other sources is not known.

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-MLF1IP / PBIP1 (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

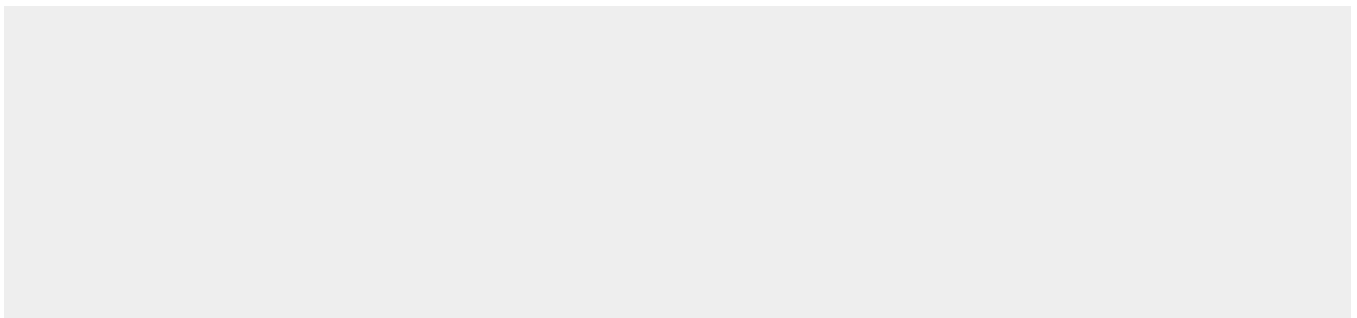
Tissue Location

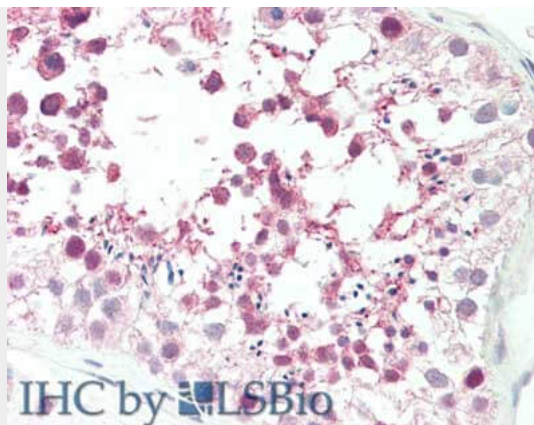
Expressed at high levels in the testis, fetal liver, thymus, bone marrow and at lower levels in the lymph nodes, placenta, colon and spleen. Present in all cell lines examined, including B-cells, T-cells, epithelial cells and fibroblast cells Expressed at high levels in glioblastoma cell lines

Anti-MLF1IP / PBIP1 (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 Cytometry](#)
- [Cell Culture](#)

Anti-MLF1IP / PBIP1 (RABBIT) Antibody - Images



Immunohistochemistry of rabbit anti-MLF1IP-PBIP1 antibody. Tissue: skin testis. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Anti-MLF1IP-PBIP1 at 5 $\mu\text{g}/\text{mL}$ for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Staining: MLF1IP-PBIP1 as precipitated red signal with hematoxylin purple nuclear counterstain.

Anti-MLF1IP / PBIP1 (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.