

Datasheet for 600-401-A91S**MLF1 Antibody****Overview**

Description:	Anti-MLF1IP / PBIP1 (RABBIT) Antibody - 600-401-A91S
Item No.:	600-401-A91S
Size:	25 µL
Applications:	ELISA, IHC, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

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.
Synonyms:	rabbit anti-MLF1 pT78 antibody, rabbit anti-MLF1 Interacting Protein pT78 antibody, Centromere protein U, CENP-U, Centromere protein of 50 kDa, CENP-50, Interphase centromere complex protein 24, KSHV latent nuclear antigen-interacting protein 1, MLF1-interacting protein, Polo-box-interacting protein 1, ICEN24, PBIP1, KLIP1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	CENPU
Reactivity:	Human
Immunogen Type:	Recombinant Protein
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.
Purity/Specificity:	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.
Relevant Links:	• NCBI - 38016935 • UniProtKB - Q71F23 • GeneID - 79682

Application Details

Tested Applications:	ELISA, IHC, WB
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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:650,000
IHC:	5µg/mL
WB:	1:500- 1:2,000

Formulation

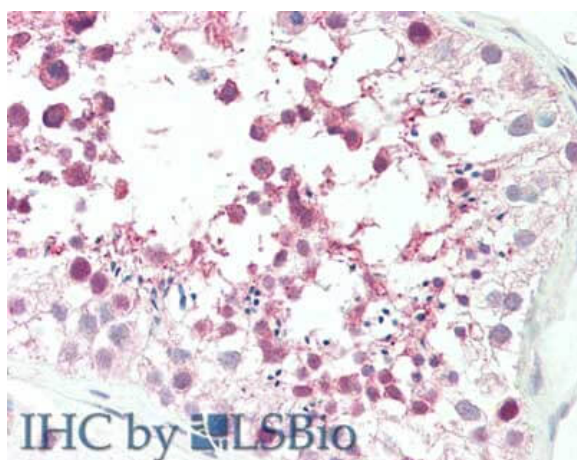
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm

Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is three (3) months from date of receipt.

Images



Immunohistochemistry

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 µg/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.

**Western Blot**

Western blot using Rockland's affinity purified anti-MLF1IP / PBIP1 antibody shows detection of endogenous MLF1IP protein (a tier of four modified protein bands indicated by the arrowheads) in lysates of Hela cells (- lane). Cells treated with MLF1IP / PBIP1 shRNA (+ lane) show no staining. The identities of the higher and lower molecular weight bands are unknown. Primary antibody was used at 1:1,000. Personal Communication, K.S. Lee, NCI, Bethesda, MD.

Disclaimer

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