

Datasheet for 600-401-A92S**MLF1 Antibody****Overview**

Description:	Anti-MLF1 Interacting Protein (N-terminal specific) (RABBIT) Antibody - 600-401-A92S
Item No.:	600-401-A92S
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 antibody, rabbit anti-MLF1 Interacting Protein 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 200 residue recombinant protein corresponding to the amino 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:	• UniProtKB - Q71F23 • NCBI - 38016935 • 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:	User Optimized
WB:	1:500- 1:2,000

Formulation

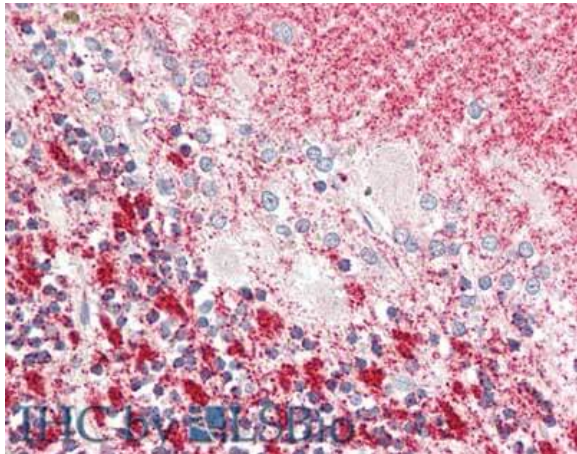
Physical State:	Liquid (sterile filtered)
Concentration:	0.88 mg/mL by UV absorbance at 280 nm

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

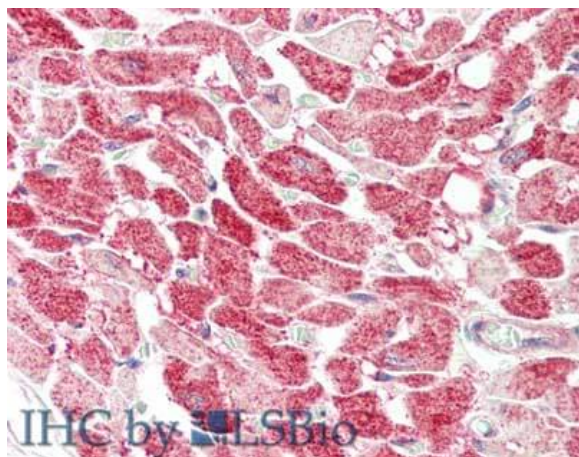
Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge 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-MLF1 antibody.
 Tissue: brain, cerebellum. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Anti-MLF1 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: MLF1 as precipitated red signal with hematoxylin purple nuclear counterstain.



Immunohistochemistry

Immunohistochemistry of rabbit anti-MLF1 antibody.
 Tissue: heart. Fixation: formalin fixed paraffin embedded.
 Antigen retrieval: not required. Primary antibody: Anti-MLF1 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: MLF1 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

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.