

Anti-MLF1 CENPU Antibody

Catalog Number: A07180

About CENPU

This antibody 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.

Overview

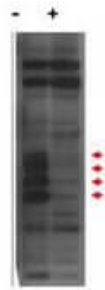
Product Name	Anti-MLF1 CENPU Antibody
Reactive Species	Human
Description	Boster Bio Anti-MLF1 CENPU Antibody (Catalog # A07180). Tested in ELISA, IHC, WB applications. This antibody reacts with Human.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	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. Expiration date is one (1) year from date of opening. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	Q71F23

Technical Details

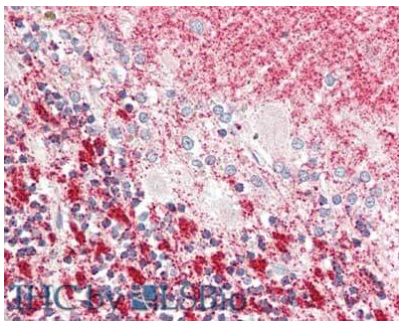
Immunogen	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a 200 residue recombinant protein corresponding to the amino terminal end of human MLF1IP protein.
Predicted Reactive Species	Chimpanzee, Drosophila, Macaque
Isotype	IgG

Form	Liquid (sterile filtered)
Concentration	0.88 mg/mL by UV absorbance at 280 nm
Purification	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.
Suggested Dilutions	ELISA: 1:1,400,000 IHC: User optimized WB: 1:500- 1:2,000 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.

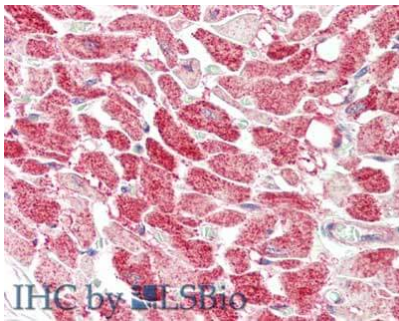
Anti-MLF1 CENPU Antibody (A07180) Images



Western blot using Boster'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.



Immunohistochemistry of rabbit anti-MLF1 antibody. Tissue: brain, cerebellum. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Anti-MLF1 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: MLF1 as precipitated red signal with hematoxylin purple nuclear counterstain.



Immunohistochemistry of rabbit anti-MLF1 antibody. Tissue: heart. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Anti-MLF1 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: MLF1 as precipitated red signal with hematoxylin purple nuclear counterstain.

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Anti-MLF1 CENPU Antibody

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