

Product datasheet for AP07854PU-N

CENPU pThr78 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IF, IHC, WB
Recommended Dilution:	ELISA: 1/5000 - 1/25000. Immunocytochemistry: 1/100 - 1/500. Immunohistochemistry on Paraffin Sections: 20 µg/ml. Western Blot: 1/500 - 1/2000.
Reactivity:	Bovine, Canine, Human, Monkey, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide from human MLF1IP / PBIP1, phosphorylated at Thr78
Specificity:	This antibody detects Centromere protein U (MLF1IP), pThr78.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 with 0.01% (w/v) Sodium Azide as preservative State: Aff - Purified State: Liquid purified IgG fraction
Concentration:	lot specific
Purification:	Immunoaffinity Chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Dilute only prior to immediate use. Avoid cycles of freezing and thawing.
Stability:	Shelf life: One year from despatch.
Gene Name:	centromere protein U
Database Link:	Entrez Gene 79682 Human Q71F23

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Background:

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:

MLF1-interacting protein, Centromere protein U, CENPU, ICEN24, KLIP1, PBIP, CENP-U(50)

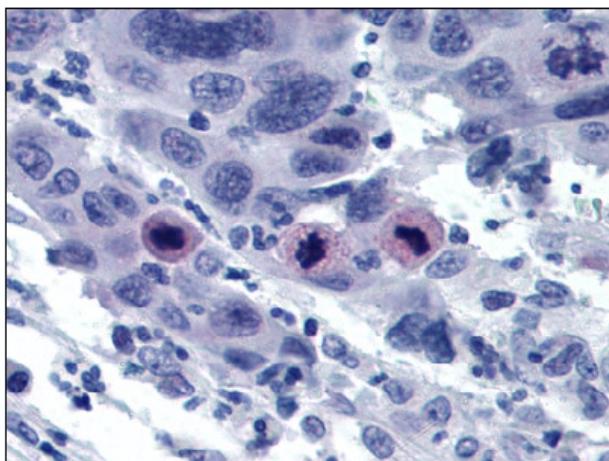
Product images:

Figure 1. Staining MLF1 Interacting Protein (MLF1IP) in Colon adenocarcinoma by Immunohistochemistry using Formalin-Fixed Paraffin-Embedded (FFPE) tissue.