

## Product datasheet for **AP07854PU-N**

### CENPU pThr78 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IF, IHC, WB
Recommended Dilution:	<b>ELISA:</b> 1/5000 - 1/25000. <b>Immunocytochemistry:</b> 1/100 - 1/500. <b>Immunohistochemistry on Paraffin Sections:</b> 20 µg/ml. <b>Western Blot:</b> 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:	<a href="#">Entrez Gene 79682 Human Q71F23</a>



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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)

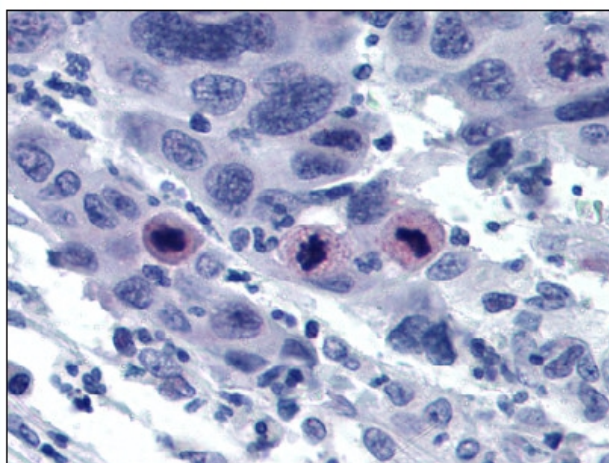
**Product images:**


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