

## **CLP1 Antibody (C-term)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP17136b

### **Specification**

## **CLP1 Antibody (C-term) - Product Information**

Application WB,E
Primary Accession 092989

Other Accession <u>O5PQL4</u>, <u>O99LI9</u>, <u>O4R7R3</u>, <u>O5ZIL4</u>, <u>A2VE01</u>,

NP 006822.1, NP 001136069.1

Reactivity Human

Predicted Bovine, Chicken, Monkey, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Calculated MW 47646
Antigen Region 308-336

## CLP1 Antibody (C-term) - Additional Information

#### **Gene ID** 10978

## **Other Names**

 $\label{lem:condition} Polyribonucleotide 5'-hydroxyl-kinase Clp1 $$ {ECO:0000255|HAMAP-Rule:MF_03035}$, Polyadenylation factor Clp1 $$ {ECO:0000255|HAMAP-Rule:MF_03035}$, Polynucleotide kinase Clp1 $$ {ECO:0000255|HAMAP-Rule:MF_03035}$, Pre-mRNA cleavage complex II protein Clp1 $$ {ECO:0000255|HAMAP-Rule:MF_03035}$, CLP1 $$ {ECO:0000255|HAMAP-Rule:MF_03035}$, HEAB$$ 

### Target/Specificity

This CLP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 308-336 amino acids from the C-terminal region of human CLP1.

### **Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

#### **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

### **Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### **Precautions**

CLP1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.



## CLP1 Antibody (C-term) - Protein Information

Name CLP1 {ECO:0000255|HAMAP-Rule:MF 03035}

**Synonyms HEAB** 

**Function** Polynucleotide kinase that can phosphorylate the 5'-hydroxyl groups of double-stranded RNA (dsRNA), single-stranded RNA (ssRNA), double-stranded DNA (dsDNA) and double-stranded DNA:RNA hybrids. dsRNA is phosphorylated more efficiently than dsDNA, and the RNA component of a DNA:RNA hybrid is phosphorylated more efficiently than the DNA component. Plays a key role in both tRNA splicing and mRNA 3'-end formation. Component of the tRNA splicing endonuclease complex: phosphorylates the 5'-terminus of the tRNA 3'-exon during tRNA splicing; this phosphorylation event is a prerequisite for the subsequent ligation of the two exon halves and the production of a mature tRNA (PubMed:24766809, PubMed:24766810). Its role in tRNA splicing and maturation is required for cerebellar development (PubMed:24766809, PubMed:24766810). Component of the pre-mRNA cleavage complex II (CF-II), which seems to be required for mRNA 3'-end formation. Also phosphorylates the 5'-terminus of exogenously introduced short interfering RNAs (siRNAs), which is a necessary prerequisite for their incorporation into the RNA-induced silencing complex (RISC). However, endogenous siRNAs and microRNAs (miRNAs) that are produced by the cleavage of dsRNA precursors by DICER1 already contain a 5'-phosphate group, so this protein may be dispensible for normal RNA-mediated gene silencing.

#### **Cellular Location**

Nucleus {ECO:0000255|HAMAP-Rule:MF\_03035, ECO:0000269|PubMed:11060040, ECO:0000269|PubMed:24766810}

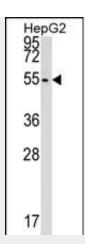
#### CLP1 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## CLP1 Antibody (C-term) - Images





CLP1 Antibody (C-term) (Cat. #AP17136b) western blot analysis in HepG2 cell line lysates (35ug/lane). This demonstrates the CLP1 antibody detected the CLP1 protein (arrow).

# CLP1 Antibody (C-term) - Background

Polynucleotide kinase that can phosphorylate the 5'-hydroxyl groups of double-stranded RNA (dsRNA), single-stranded RNA (ssRNA), double stranded DNA (dsDNA) and double-stranded DNA:RNA hybrids. dsRNA is phosphorylated more efficiently than dsDNA, and the RNA component of a DNA:RNA hybrid is phosphorylated more efficiently than the DNA component. Appears to have roles in both tRNA splicing and mRNA 3'-end formation. Component of the tRNA splicing endonuclease complex. Phosphorylates the 5'-terminus of the tRNA 3'-exon during tRNA splicing; this phosphorylation event is a prerequisite for the subsequent ligation of the two exon halves and the production of a mature tRNA. Component of the pre-mRNA cleavage complex II (CF-II), which seems to be required for mRNA 3'-end formation. Also phosphorylates the 5'-terminus of exogenously introduced short interfering RNAs (siRNAs), which is a necessary prerequisite for their incorporation into the RNA-induced silencing complex (RISC). However endogenous siRNAs and microRNAs (miRNAs) that are produced by the cleavage of dsRNA precursors by DICER1 already contain a 5'-phosphate group, so this protein may be dispensible for normal RNA-mediated gene silencing.

### CLP1 Antibody (C-term) - References

Ramirez, A., et al. RNA 14(9):1737-1745(2008) Weitzer, S., et al. Nature 447(7141):222-226(2007) Paushkin, S.V., et al. Cell 117(3):311-321(2004) Zhou, Z., et al. Nature 419(6903):182-185(2002) de Vries, H., et al. EMBO J. 19(21):5895-5904(2000)