

KD-Validated Anti-CLP1 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1307**Specification****KD-Validated Anti-CLP1 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	Q92989
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 48 kDa , observed, 48 kDa KDa
Gene Name	CLP1
Aliases	CLP1; Cleavage Factor Polyribonucleotide Kinase Subunit 1; HEAB; Cleavage And Polyadenylation Factor I Subunit 1; Polyribonucleotide 5'-Hydroxyl-Kinase Clp1; Pre-mRNA Cleavage Complex II Protein Clp1; Polyadenylation Factor Clp1; Polynucleotide Kinase Clp1; EC 2.7.1.78; HClp1; CLP1, Cleavage And Polyadenylation Factor I Subunit, Homolog (S. Cerevisiae); Polyribonucleotide 5'-Hydroxyl-Kinase; Homolog Of Yeast CFIA Subunit Clp1p; ATP/GTP-Binding Protein; ATP/GTPbinding Protein; HCLP1
Immunogen	A synthesized peptide derived from human HEAB

KD-Validated Anti-CLP1 Rabbit Monoclonal Antibody - Additional Information

Gene ID	10978
Other Names	
Polyribonucleotide 5'-hydroxyl-kinase Clp1 {ECO:0000255 HAMAP-Rule:MF_03035}, 2.7.1.78 {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	

KD-Validated Anti-CLP1 Rabbit Monoclonal Antibody - 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](http://www.uniprot.org/citations/24766809) target="_blank">24766809, PubMed: [24766810](http://www.uniprot.org/citations/24766810) target="_blank">24766810). Its role in tRNA splicing and maturation is required for cerebellar development (PubMed: [24766809](http://www.uniprot.org/citations/24766809) target="_blank">24766809, PubMed: [24766810](http://www.uniprot.org/citations/24766810) target="_blank">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 dispensable for normal RNA-mediated gene silencing.

Cellular Location

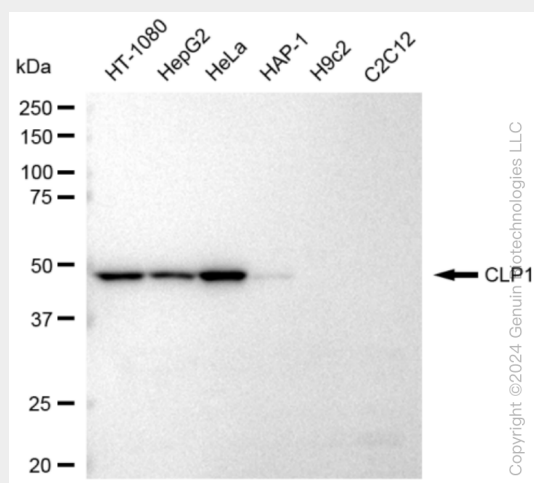
Nucleus {ECO:0000255|HAMAP-Rule:MF_03035, ECO:0000269|PubMed:11060040, ECO:0000269|PubMed:24766810}

KD-Validated Anti-CLP1 Rabbit Monoclonal Antibody - Protocols

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

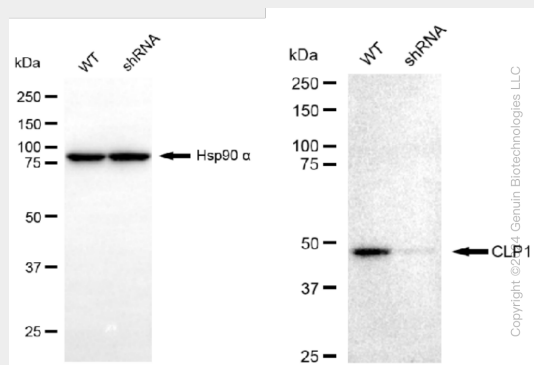
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KD-Validated Anti-CLP1 Rabbit Monoclonal Antibody - Images

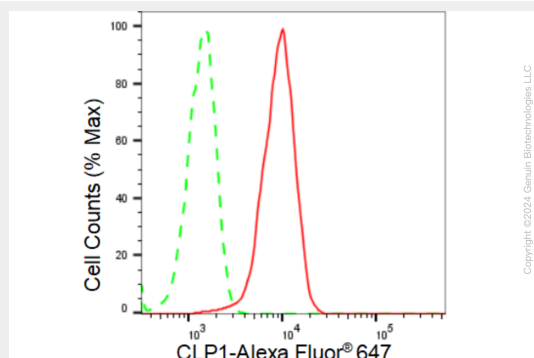


Western blotting analysis using anti-CLP1 antibody (Cat#AGI1307). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-CLP1

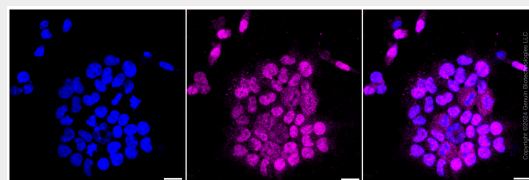
antibody (Cat#AGI1307, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-CLP1 antibody (Cat#AGI1307). CLP1 expression in wild type (WT) and CLP1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-CLP1 antibody (Cat#AGI1307, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of CLP1 expression in HeLa cells using CLP1 antibody (Cat#AGI1307, 1:2,000). Green, isotype control; red, CLP1.



Immunocytochemical staining of HeLa cells with CLP1 antibody (Cat#AGI1307, 1:1,000). Nuclei were stained blue with DAPI; CLP1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.