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KD-Validated Anti-CLPP Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI2328

Specification

KD-Validated Anti-CLPP Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	Q16740
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 30 kDa, observed, 26 kDa KDa**
Gene Name	**CLPP**
Aliases	**CLPP; Caseinolytic Mitochondrial Matrix Peptidase Proteolytic Subunit; ATP-Dependent Clp Protease Proteolytic Subunit, Mitochondrial; Endopeptidase Clp; EC 3.4.21.92; ClpP (Caseinolytic Protease, ATP-Dependent, Proteolytic Subunit, E. Coli) Homolog; ClpP Caseinolytic Peptidase, ATP-Dependent, Proteolytic Subunit Homolog (E. Coli); ClpP Caseinolytic Protease, ATP-Dependent, Proteolytic Subunit Homolog (E. Coli); ClpP Caseinolytic Peptidase, ATP-Dependent, Proteolytic Subunit Homolog; ClpP Caseinolytic Protease, ATP-Dependent, Proteolytic Subunit Homolog; Putative ATP-Dependent Clp Protease Proteolytic Subunit, Mitochondrial; ATP-Dependent Protease ClpAP (E. Coli), Proteolytic Subunit, Human; ClpP Caseinolytic Peptidase ATP-Dependent, Proteolytic Subunit; ATP-Dependent; Protease ClpAP, Proteolytic Subunit, Human; DFNB81; PRLTS3**
Immunogen	**A synthesized peptide derived from human CLPP**

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

Gene ID	**8192**

Other Names
ATP-dependent Clp protease proteolytic subunit, mitochondrial, 3.4.21.92, Caseinolytic mitochondrial matrix peptidase proteolytic subunit {ECO:0000312|HGNC:HGNC:2084}, Endopeptidase Clp, CLPP (HGNC:2084)

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KD-Validated Anti-CLPP Rabbit Monoclonal Antibody - Protein Information

Name CLPP (HGNC:2084)

Function
Protease component of the ClpXP complex that cleaves peptides and various proteins in an ATP-dependent process. Has low peptidase activity in the absence of CLPX. The ClpXP complex can degrade CSN1S1, CSN2 and CSN3, as well as synthetic peptides (in vitro) and may be responsible for a fairly general and central housekeeping function rather than for the degradation of specific substrates (PubMed:11923310, PubMed:15522782). Cleaves PINK1 in the mitochondrion (PubMed:22354088).

Cellular Location
Mitochondrion matrix

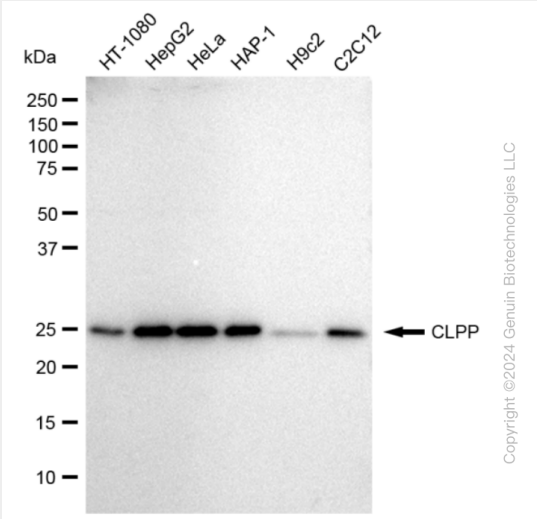
Tissue Location
Detected in liver (at protein level). Predominantly expressed in skeletal muscle. Intermediate levels in heart, liver and pancreas. Low in brain, placenta, lung and kidney

KD-Validated Anti-CLPP 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 Cytomety
- Cell Culture

KD-Validated Anti-CLPP Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-CLPP antibody (Cat#AGI2328). Total cell lysates (30 µg) from

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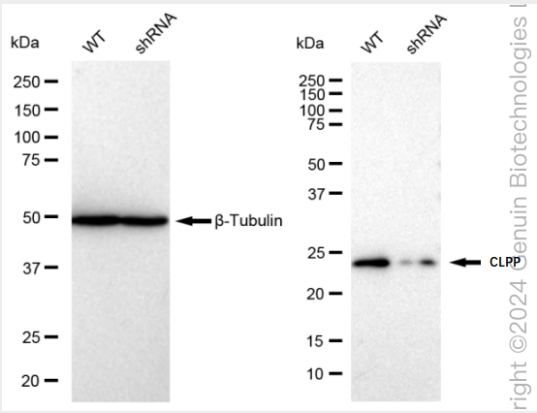
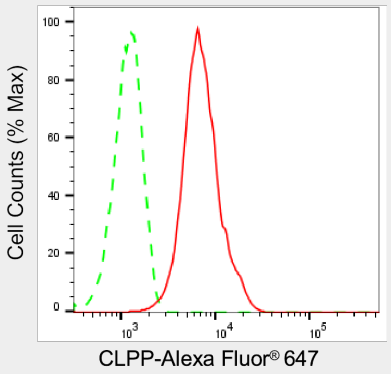
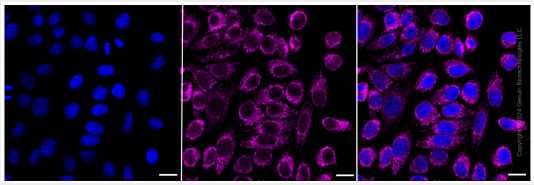
various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-CLPP antibody (Cat#AGI2328, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-CLPP antibody (Cat#AGI2328). CLPP expression in wild type (WT) and CLPP shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-CLPP antibody (Cat#AGI2328, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of CLPP expression in HepG2 cells using anti-CLPP antibody (Cat#AGI2328, 1:2,000). Green, isotype control; red, CLPP.



Immunocytochemical staining of HepG2 cells with CLPP antibody (Cat#AGI2328, 1:1,000). Nuclei were stained blue with DAPI; CLPP was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 µm.