

Product Name: KD-Validated CLPP Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA00237**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 30.2kDa

Antigen Information

Gene Name	CLPP
Alternative Names	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; DFN881; PRLTS3

Gene ID	8192.0
SwissProt ID	Q16740
Immunogen	A synthesized peptide derived from human CLPP

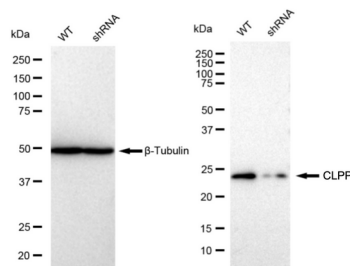
Background

The protein encoded by this gene belongs to the peptidase family S14 and hydrolyzes proteins into small peptides in the presence of ATP and magnesium. The protein is transported into mitochondrial matrix and is associated with the inner mitochondrial membrane. [provided by RefSeq, Jul 2008]

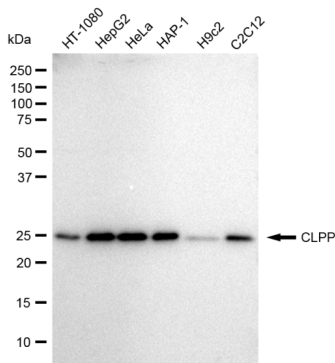
Research Area

Signal Transduction, Metabolism

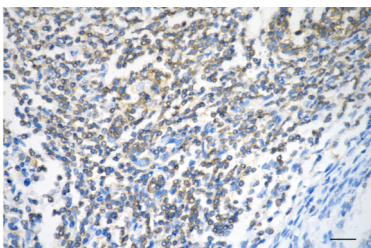
Image Data



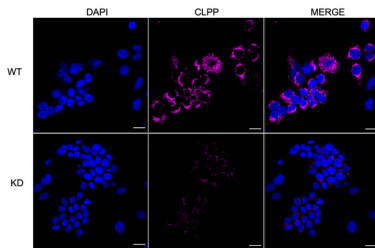
Western blotting analysis using CLPP antibody (KVA00237). CLPP expression in wild type (WT) and CLPP shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with CLPP antibody (KVA00237, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



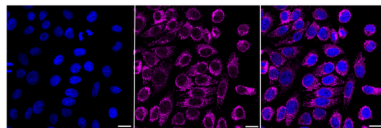
Western blotting analysis using CLPP antibody (KVA00237). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with CLPP antibody (KVA00237, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively. CLPP, caseinolytic mitochondrial matrix peptidase proteolytic subunit.



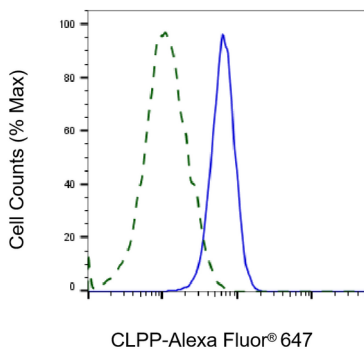
Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using CLPP antibody (KVA00237, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



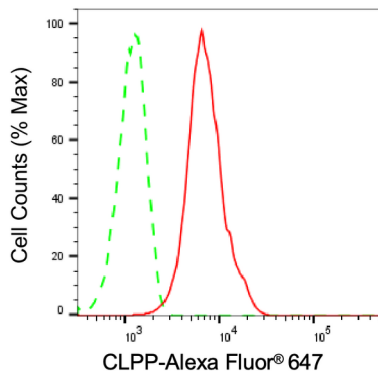
Immunocytochemical staining of HeLa cells using CLPP antibody (KVA00237, 1:1,000), Top panel: wild-type (WT); Bottom panel: CLPP shRNA knockdown (KD). Nuclei were stained blue with DAPI; CLPP was stained magenta with Alexa Fluor® 647. Scale bar, 20 μm. Permeabilization: Triton.



Immunocytochemical staining of HepG2 cells with CLPP antibody (KVA00237, 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.



Validation of CLPP knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with CLPP antibody (KVA00237, 1:2,000) and analyzed using CytoFLEX.



Flow cytometric analysis of CLPP expression in HepG2 cells using CLPP antibody (KVA00237, 1:2,000). Green, isotype control; red, CLPP.