

KD-Validated Anti-CLPP Recombinant Rabbit Monoclonal Antibody



Catalog #: 68466

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

Background

Gene Name: CLPP

NCBI Gene Entry: [8192](#)

UniProt Entry: [Q16740](#)

Application Information

Molecular Weight: Predicted, 30 kDa, observed, 26 kDa

Clonality: Rabbit monoclonal antibody

Clone ID: 23GB1865

Species Reactivity: Human, mouse, rat

Applications Tested: Western blotting (WB), flow cytometry (FCM), immunocytochemistry (IC), Immunohistochemistry (IHC)

Immunogen

A synthesized peptide derived from human CLPP

Isotype

Rabbit IgG

Storage Buffer

Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.

Storage

Store at -20 °C for one year.

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Recommended Dilutions

Western Blotting (WB): 1:1,000-1:5,000

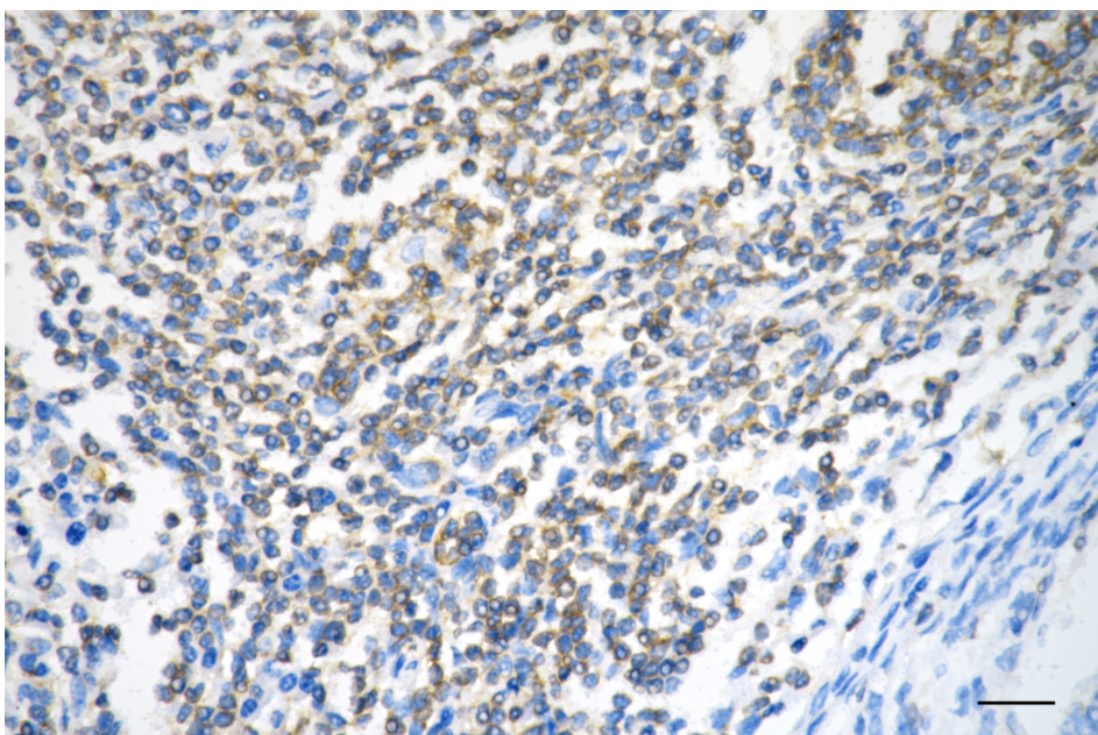
Immunocytochemistry (IC): 1:100-1:1,000

Flow Cytometry (FCM) : 1:2,000

Immunohistochemistry (IHC): 1:100-1:200

Note: This product is for research use only.

Validation Data



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Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using anti-CLPP antibody (Cat#68466, 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.

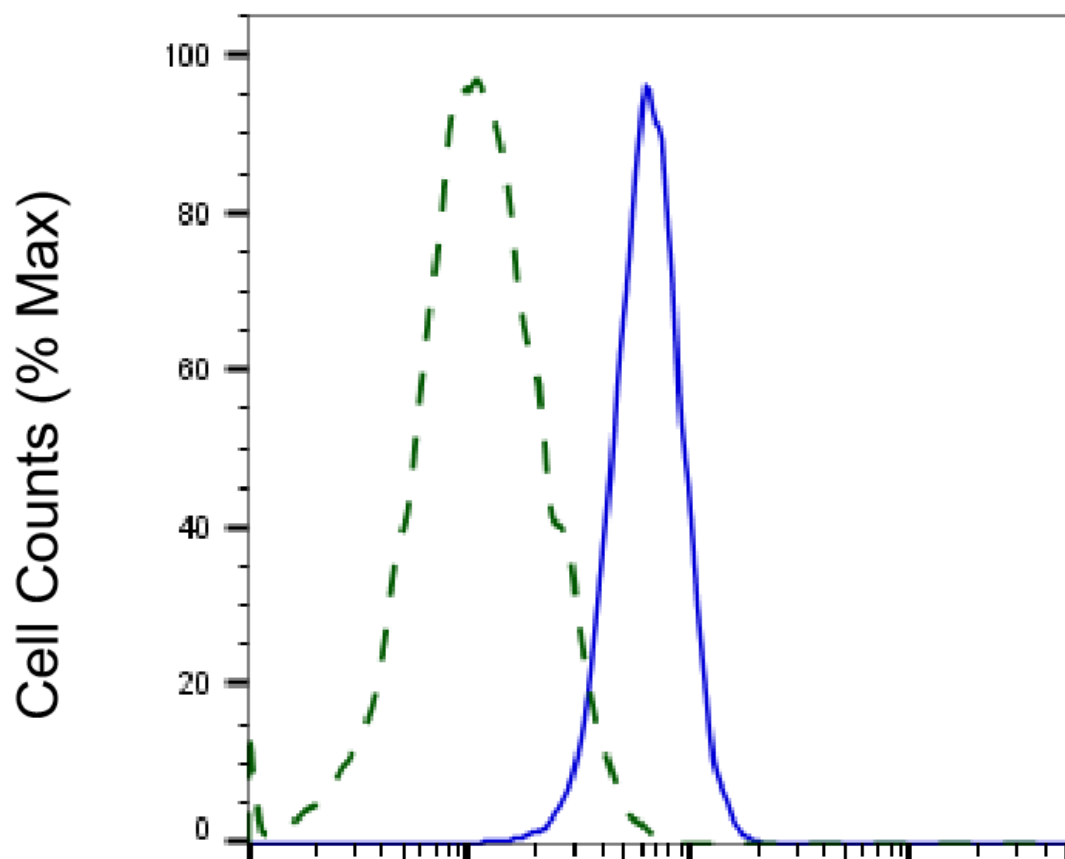
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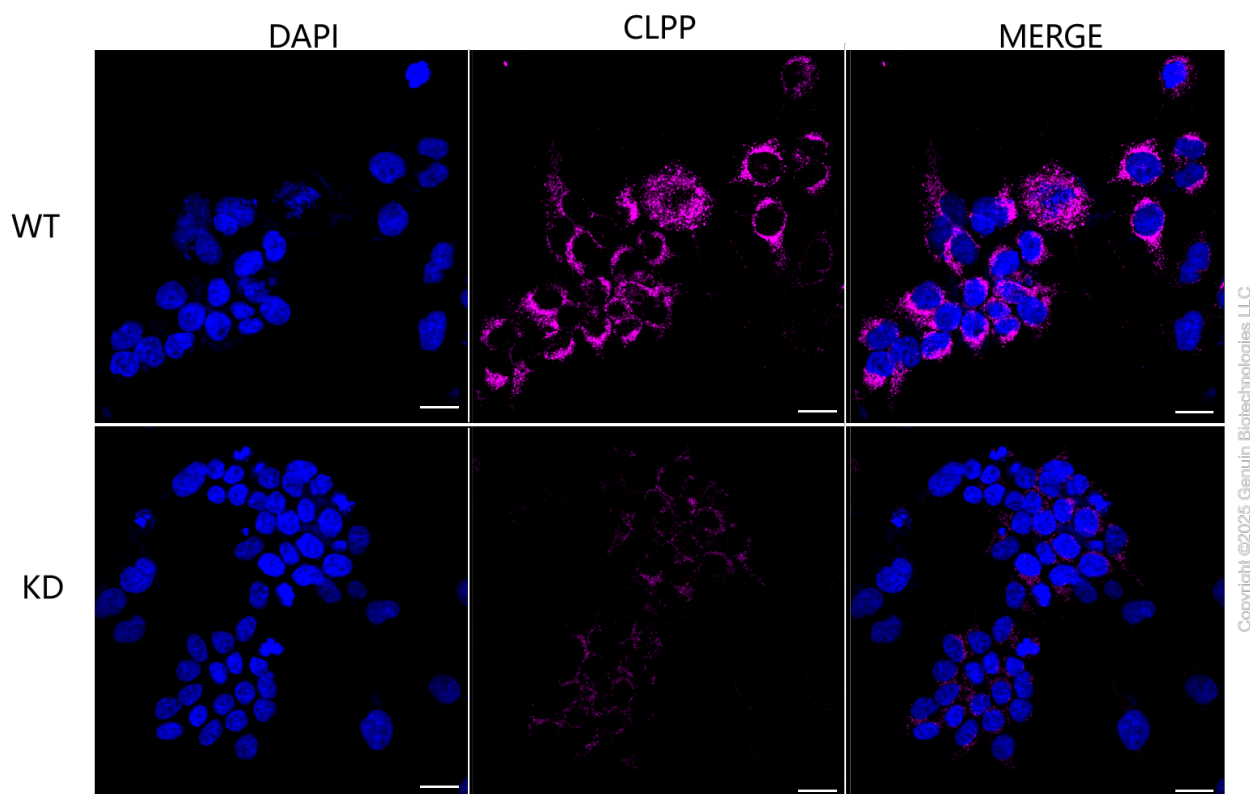
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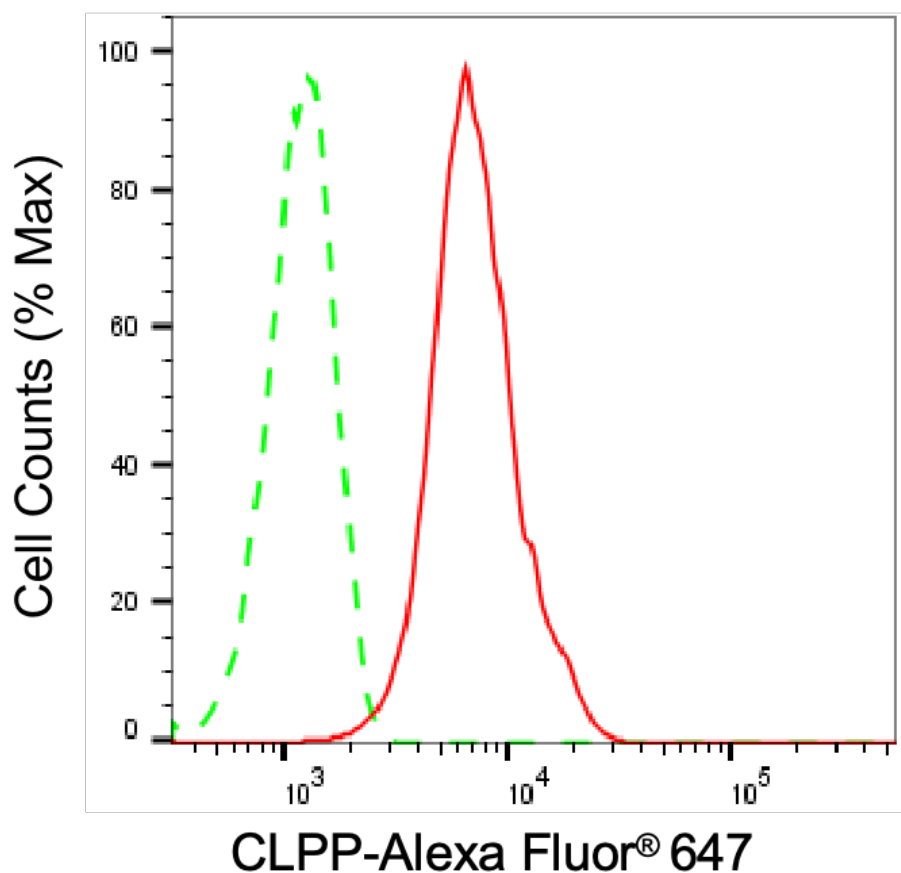
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CLPP-Alexa Fluor® 647

Validation of CLPP knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with anti-CLPP antibody (Cat#68466, 1:2,000) and analyzed using CytoFLEX.

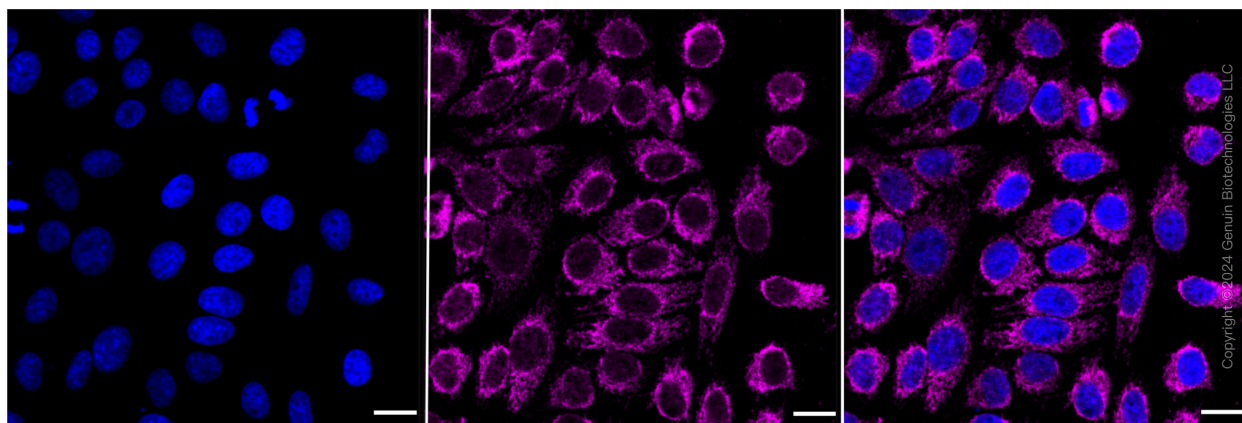


Immunocytochemical staining of HeLa cells using anti-CLPP antibody (Cat#68466, 1:1,000), Top panel: wild-type (WT); Bottom panel: CLPP shRNA knockdown (KD). Nuclei were stained blue with DAPI; CLPP was stained magenta with Alexa Fluor® 647. Scale bar, 20 μ m. Permeabilization: Triton.



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Flow cytometric analysis of CLPP expression in HepG2 cells using anti-CLPP antibody (Cat#68466, 1:2,000). Green, isotype control; red, CLPP.



Immunocytochemical staining of HepG2 cells with CLPP antibody (Cat#68466, 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.

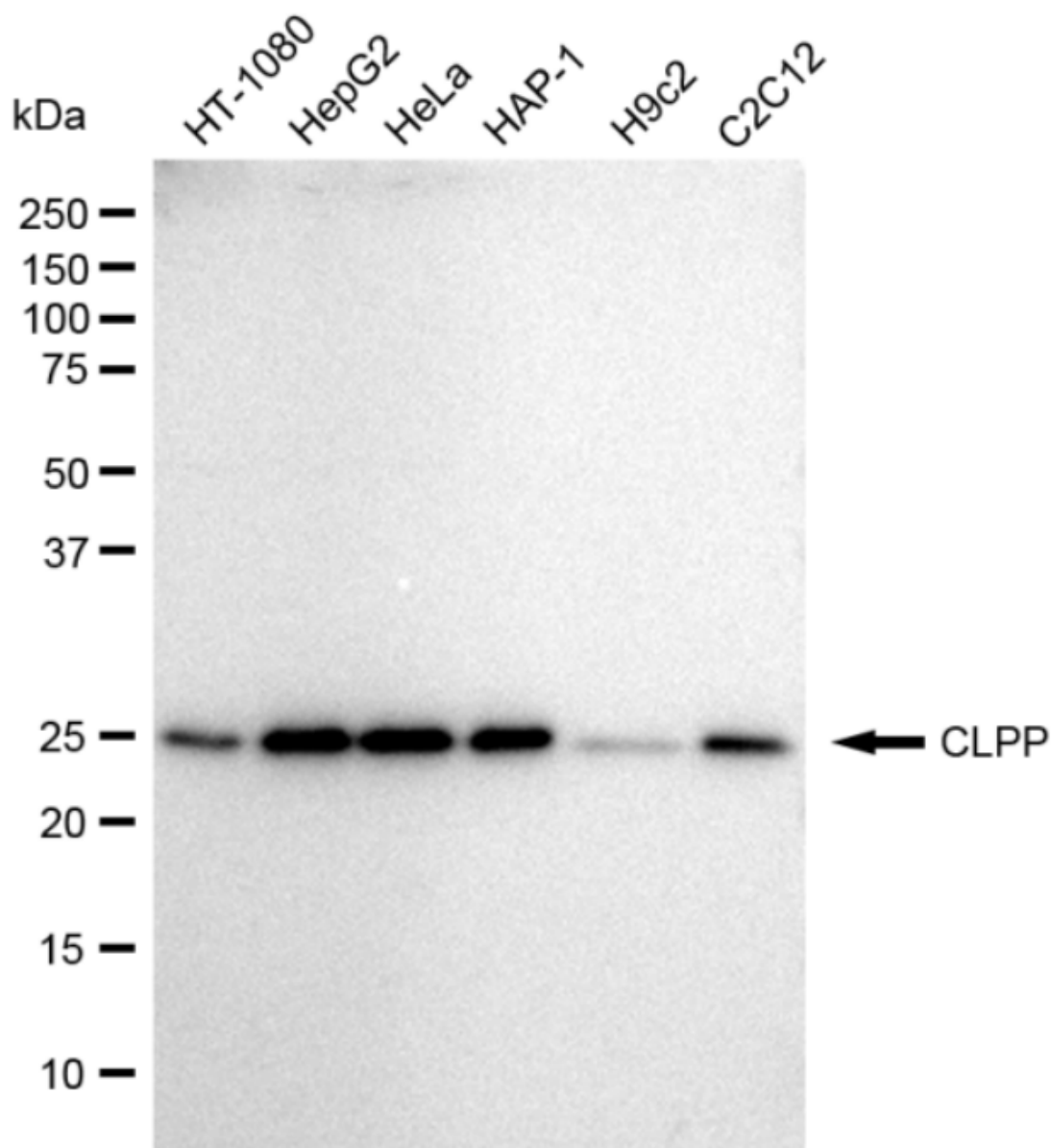
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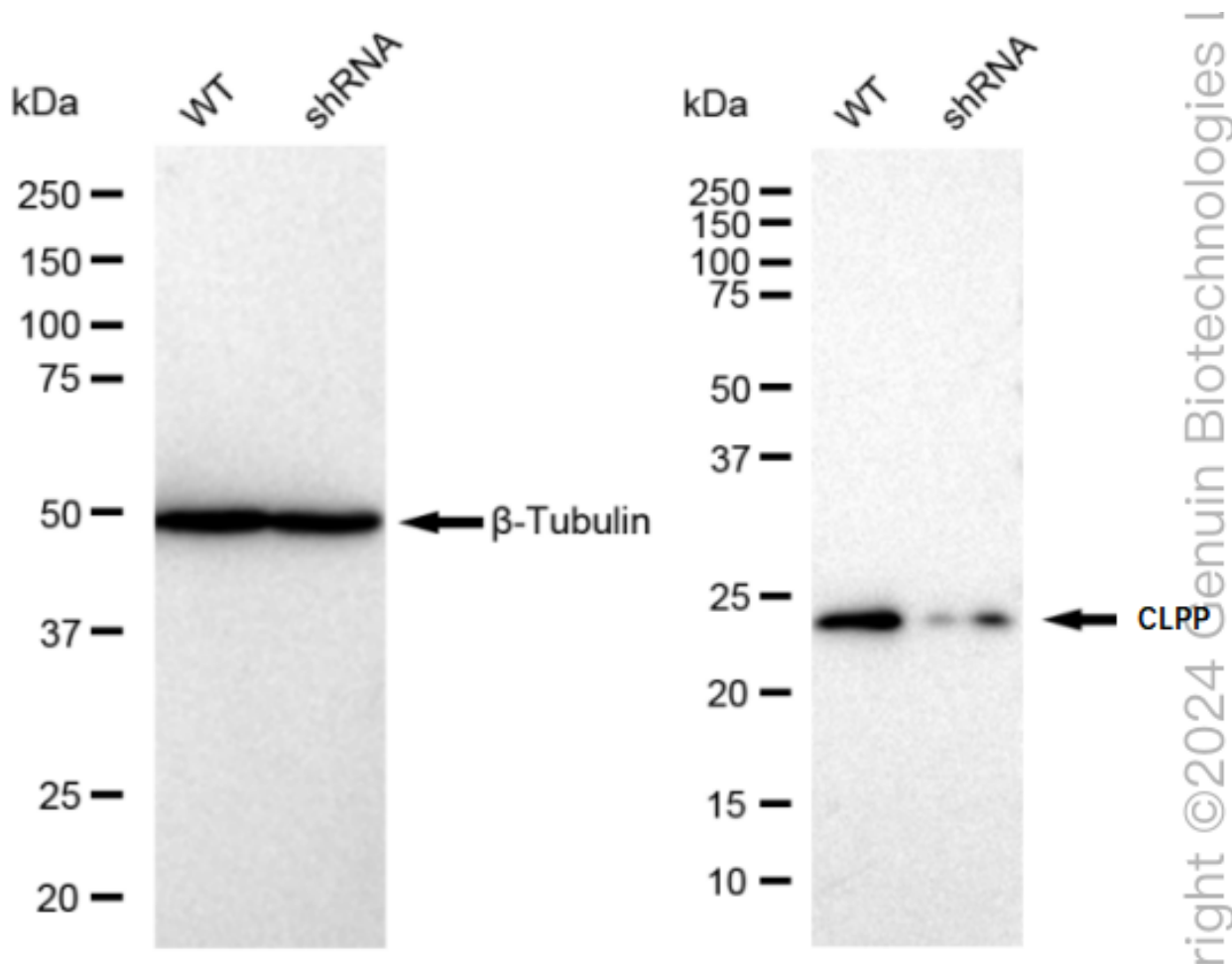
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Western blotting analysis using anti-CLPP antibody (Cat#68466). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-CLPP antibody (Cat#68466, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using FeQ™ ECL Substrate Kit (Cat#226). CLPP, caseinolytic mitochondrial matrix peptidase proteolytic subunit.



Western blotting analysis using anti-CLPP antibody (Cat#68466). 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#68466, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using FeQ™ ECL Substrate Kit (Cat#226).