Product Name: **KD-Validated CLPX Recombinant Rabbit Monoclonal Antibody**
Catalog #: **KVAb01793**
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: 69.2kDa

Antigen Information

Gene Name	CLPX
Alternative Names	Caseinolytic Mitochondrial Matrix Peptidase Chaperone Subunit X; ATP-Dependent Clp Protease ATP-Binding Subunit ClpX-Like, Mitochondrial; ClpX (Caseinolytic Protease X, E. Coli) Homolog ; ClpX Caseinolytic Protease X Homolog (E. Coli); Energy-Dependent Regulator Of Proteolysis; ClpX Caseinolytic Peptidase X Homolog; ClpX Caseinolytic Protease X Homolog; EPP2
Gene ID	10845.0
SwissProt ID	O76031
Immunogen	A synthesized peptide derived from human CLPX

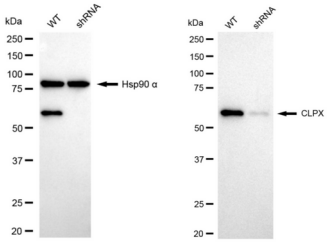
Background

The protein encoded by this gene is part of a protease found in mitochondria. This protease is ATP-dependent and targets specific proteins for degradation. The protease consists of two heptameric rings of the CLPP catalytic subunit sandwiched between two hexameric rings of the chaperone subunit encoded by this gene. Targeted proteins are unwound by this protein and then passed on to the CLPP subunit for degradation. Two transcript variants, one protein-coding and the other non-protein coding, have been found for this gene. [provided by RefSeq, Nov 2015]

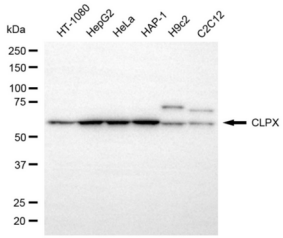
Research Area

Signal Transduction,Cell Biology,Metabolism

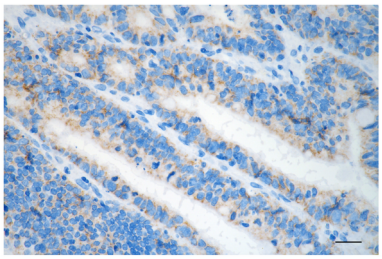
Image Data



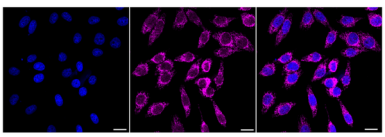
Western blotting analysis using CLPX antibody (KVAb01793). CLPX expression in wild-type (WT) and CLPX shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with CLPX antibody (KVAb01793, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



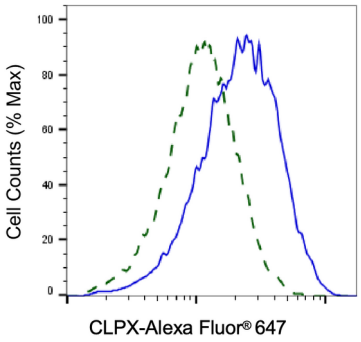
Western blotting analysis using CLPX antibody (KVAb01793). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with CLPX antibody (KVAb01793, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



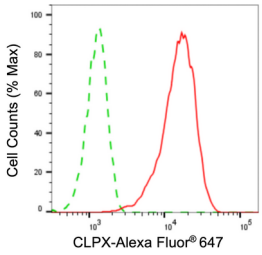
Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using CLPX antibody (KVAb01793, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of HepG2 cells with CLPX antibody (KVAb01793, 1:1,000). Nuclei were stained blue with DAPI; CLPX 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.



Validation of CLPX knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with CLPX antibody (KVAb01793, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of CLPX expression in HepG2 cells using CLPX antibody (KVAb01793, 1:2,000). Green, isotype control; red, CLPX.