

Rabbit CLPX Polyclonal Antibody | anti-CLPX antibody

Anti-CLPX Picoband antibody

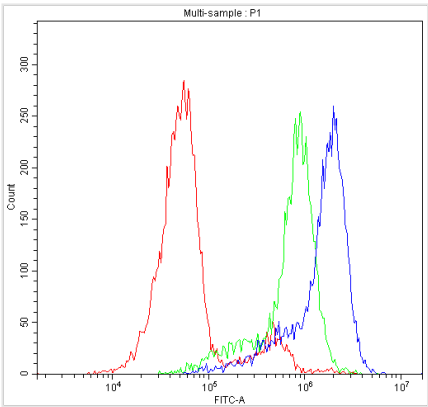
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA124607	Rabbit	Human, Mouse, Rat No cross reactivity with other proteins.	Western Blot, Immunohistochemistry, ELISA

PRODUCT SYNONYMS

CLPX; Polyclonal Antibody; Anti-CLPX Picoband antibody; ATP-dependent Clp protease ATP-binding subunit clpX-like; mitochondrial; anti-CLPX antibody

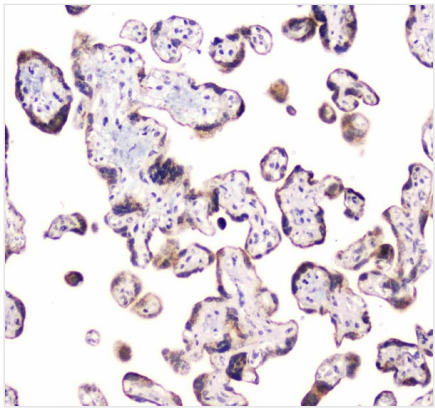
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat No cross reactivity with other proteins.
Clonality	Polyclonal
Form/Format	Lyophilized
Sequence Length	633
Applicable Applications for anti-CLPX antibody	WB (Western Blot), IHC (Immunohistochemistry), ELISA
Immunogen	E Coli-derived human CLPX recombinant protein (Position: A337-E574).
Subcellular Localization	Mitochondrion. Mitochondrion matrix, mitochondrion nucleoid.
Tissue Specificity	Higher expression in skeletal muscle and heart and to a lesser extent in liver, brain, placenta, lung, kidney and pancreas.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



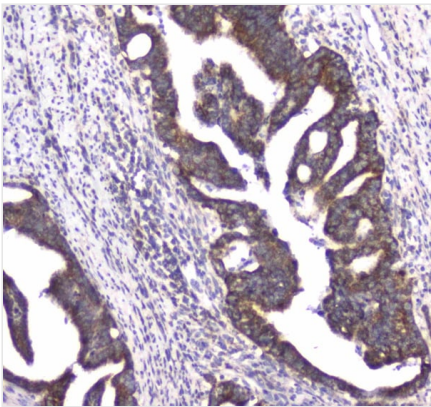
FCM/FACS (Flow Cytometry)

Figure 4. Flow Cytometry analysis of Hela cells using anti-CLPX antibody (AAA124607).Overlay histogram showing Hela cells stained with AAA124607 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CLPX Antibody (AAA124607,1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



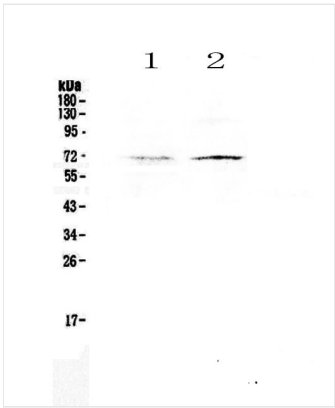
IHC (Immunohistochemistry)

Figure 2. IHC analysis of CLPX using anti-CLPX antibody (AAA124607).CLPX was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CLPX Antibody (AAA124607) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of CLPX using anti-CLPX antibody (AAA124607).CLPX was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CLPX Antibody (AAA124607) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of CLPX using anti-CLPX antibody (AAA124607).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: human Hela whole cell lysates,Lane 2: human HepG2 whole cell lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CLPX antigen affinity purified polyclonal antibody at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for CLPX at approximately 69KD. The expected band size for CLPX is at 69KD.

ADDITIONAL INFORMATION

Related Product Information for anti-CLPX antibody	Description: ATP-dependent Clp protease ATP-binding subunit clpX-like, mitochondrial is an enzyme that in humans is encoded by the CLPX gene. This protein is a member of the family of AAA Proteins (AAA+ ATPase) and is to form the protein complex of Clp protease. 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. Protein Function: ATP-dependent specificity component of the Clp protease complex. Hydrolyzes ATP. Targets specific substrates for degradation by the Clp complex (PubMed: 11923310, PubMed: 22710082). Can perform chaperone functions in the absence of CLPP. Enhances the DNA-binding activity of TFAM and is required for maintaining a normal mitochondrial nucleoid structure (PubMed: 22841477). ATP- dependent unfoldase that stimulates the incorporation of the pyridoxal phosphate cofactor into 5-aminolevulinate synthase, thereby activating 5-aminolevulinate (ALA) synthesis, the first step in heme biosynthesis. Important for efficient erythropoiesis through upregulation of heme biosynthesis (PubMed: 25957689).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	7242140
NCBI GeneID	10845
NCBI Accession #	NP_006651.2
NCBI GenBank Nucleotide #	NM_006660.4
UniProt Accession #	O76031; Q9H4D9; A1L428; A8K8F1; B9EGI8
Molecular Weight	69,224 Da
NCBI Official Full Name	ATP-dependent Clp protease ATP-binding subunit clpX-like, mitochondrial
NCBI Official Synonym Full Names	caseinolytic mitochondrial matrix peptidase chaperone subunit
NCBI Official Symbol	CLPX
NCBI Protein Information	ATP-dependent Clp protease ATP-binding subunit clpX-like, mitochondrial
UniProt Protein Name	ATP-dependent Clp protease ATP-binding subunit clpX-like, mitochondrial
UniProt Gene Name	CLPX

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/clpx-antibody-western-blot-immunohistochemistry-elisa/124607>