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CLPX Antibody

Rabbit mAb
Catalog # AP92842

Product Information

Application	WB, IF, ICC
Primary Accession	O76031
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	ATP dependent Clp protease ATP binding subunit clpX like, mitochondrial; Caseinolytic protease X; clpX; ClpX caseinolytic peptidase X homolog;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	69224

Additional Information

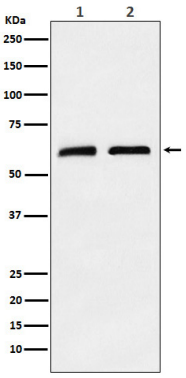
Dilution	WB 1:500~1:2000 ICC/IF 1:50~1:200
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human CLPX
Description	ATP-dependent specificity component of the Clp protease. It directs the protease to specific substrates. Can perform chaperone functions in the absence of clpP.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	CLPX (HGNC:2088)
Function	ATP-dependent chaperone that functions as an unfoldase. As part of the ClpXP protease complex, it recognizes specific protein substrates, unfolds them using energy derived from ATP hydrolysis, and then translocates them to the proteolytic subunit (CLPP) of the ClpXP complex for degradation (PubMed:11923310, PubMed:22710082, PubMed:28874591). Thanks to its chaperone activity, it also functions in the incorporation of the pyridoxal phosphate cofactor into 5- aminolevulinate synthase, thereby activating 5-aminolevulinate (ALA) synthesis, the first step in heme biosynthesis (PubMed:28874591). This chaperone is also involved in the control of mtDNA nucleoid distribution, by regulating mitochondrial transcription factor A (TFAM) activity (PubMed:22841477).
Cellular Location	Mitochondrion. Mitochondrion matrix, mitochondrion nucleoid
Tissue Location	Higher expression in skeletal muscle and heart and to a lesser extent in liver,

brain, placenta, lung, kidney and pancreas.

Images



Western blot analysis of CLPX expression in (1) A673 cell lysate; (2) Mouse brain lysate.