10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KD-Validated Anti-CLPX Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1031

Product Information

Application	WB, FC, ICC
Primary Accession	O76031
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	24GB5980
Calculated MW	69224
Gene Name	CLPX
Aliases	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
Immunogen	A synthesized peptide derived from human CLPX

Additional Information

Gene ID	10845
Other Names	ATP-dependent clpX-like chaperone, mitochondrial, 3.6.4.10, ATP-dependent Clp protease ATP-binding subunit clpX-like, mitochondrial, Caseinolytic mitochondrial matrix peptidase chaperone subunit X {ECO:0000312|HGNC:HGNC:2088}, CLPX (HGNC:2088)

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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.