

Goat Anti-CLPP Antibody
Peptide-affinity purified goat antibody
Catalog # AF1254a

Specification

Goat Anti-CLPP Antibody - Product Information

Application	WB, IHC, E
Primary Accession	Q16740
Other Accession	NP_006003 , 8192
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	30180

Goat Anti-CLPP Antibody - Additional Information

Gene ID 8192

Other Names

ATP-dependent Clp protease proteolytic subunit, mitochondrial, 3.4.21.92, Endopeptidase Clp, CLPP

Dilution

WB~~1:1000
IHC~~1:100~500
E~~N/A

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-CLPP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-CLPP Antibody - Protein Information

Name CLPP ([HGNC:2084](#))

Function

Protease component of the ClpXP complex that cleaves peptides and various proteins in an

ATP-dependent process. Has low peptidase activity in the absence of CLPX. The ClpXP complex can degrade CSN1S1, CSN2 and CSN3, as well as synthetic peptides (in vitro) and may be responsible for a fairly general and central housekeeping function rather than for the degradation of specific substrates (PubMed:11923310, PubMed:15522782). Cleaves PINK1 in the mitochondrion (PubMed:22354088).

Cellular Location

Mitochondrion matrix

Tissue Location

Detected in liver (at protein level). Predominantly expressed in skeletal muscle. Intermediate levels in heart, liver and pancreas. Low in brain, placenta, lung and kidney

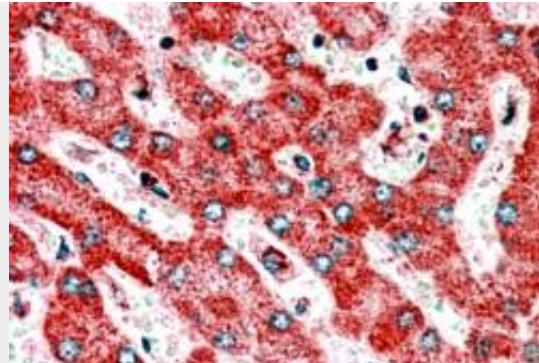
Goat Anti-CLPP Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-CLPP Antibody - Images

AF1254a (1 µg/ml) staining of Human Heart lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



AF1254a (2.5 µg/ml) staining of paraffin embedded Human Liver. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

Goat Anti-CLPP Antibody - Background

The protein encoded by this gene belongs to the peptidase family S14 and hydrolyzes proteins into small peptides in the presence of ATP and magnesium. The protein is transported into mitochondrial matrix and is associated with the inner mitochondrial membrane.

Goat Anti-CLPP Antibody - References

Decreased expression of the mitochondrial matrix proteases Lon and ClpP in cells from a patient with hereditary spastic paraplegia (SPG13). Hansen J, et al. *Neuroscience*, 2008 May 2. PMID 18378094.

Toward a confocal subcellular atlas of the human proteome. Barbe L, et al. *Mol Cell Proteomics*, 2008 Mar. PMID 18029348.

Human mitochondrial ClpP is a stable heptamer that assembles into a tetradecamer in the presence of ClpX. Kang SG, et al. *J Biol Chem*, 2005 Oct 21. PMID 16115876.

Crystallography and mutagenesis point to an essential role for the N-terminus of human mitochondrial ClpP. Kang SG, et al. *J Struct Biol*, 2004 Dec. PMID 15522782.

The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). Gerhard DS, et al. *Genome Res*, 2004 Oct. PMID 15489334.