

## LONP1 Polyclonal antibody

Catalog Number: 15440-1-AP

Featured Product

76 Publications

## Basic Information

## Catalog Number:

15440-1-AP

## Size:

500 µg/ml

## Source:

Rabbit

## Isotype:

IgG

## Immunogen Catalog Number:

AG7196

## GenBank Accession Number:

BC000235

## GeneID (NCBI):

9361

## UNIPROT ID:

P36776

## Full Name:

Lon peptidase 1, mitochondrial

## Calculated MW:

106 kDa

## Observed MW:

100 kDa

## Purification Method:

Antigen affinity purification

## Recommended Dilutions:

WB 1:1000-1:6000

IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

IF 1:50-1:500

## Applications

## Tested Applications:

IF/ICC, IHC, IP, WB, ELISA

## Cited Applications:

WB, IP, IHC, IF, CoIP

## Species Specificity:

human, mouse, rat

## Cited Species:

human, rat, mouse, monkey

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Positive Controls:

**WB**: HeLa cells, human heart tissue, rat heart tissue, rat lung tissue, mouse heart tissue, Jurkat cells, mouse brain tissue, rat brain tissue

**IP**: mouse heart tissue,

**IHC**: human lung cancer tissue,

**IF**: HepG2 cells,

## Background Information

LONP1 (Lon protease homolog, mitochondrial) is also named as LONP, LONHS, HLON, LON, PRSS15, PIM1, MGC1498 and belongs to the peptidase S16 family. It seems to play a major role in the elimination of oxidatively modified proteins in the mitochondrial matrix (PMID:18021745). LONP1, also a nuclearly encoded and mitochondrially located stress-responsive protease, is involved in heme-mediated ALAS-1 turnover (PMID:21659532). It recognizes specific surface determinants or folds, initiates proteolysis at solvent-accessible sites, and generates unfolded polypeptides that are then progressively degraded (PMID:15870080). LONP1 has some isoforms with the MW of 106 kDa, 100 kDa and 86 kDa.

## Notable Publications

Author	Pubmed ID	Journal	Application
Ruosi Yao	33061303	Drug Des Devel Ther	WB
Ya-Ling Yang	32961796	Int J Mol Sci	WB
Reiko Iida	30310528	Oxid Med Cell Longev	WB

## Storage

## Storage:

Store at -20°C. Stable for one year after shipment.

## Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

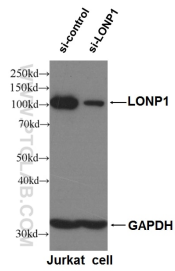
For technical support and original validation data for this product please contact:

T: 4006900926

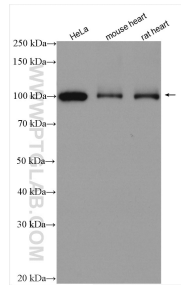
E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)W: [ptgcn.com](http://ptgcn.com)

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

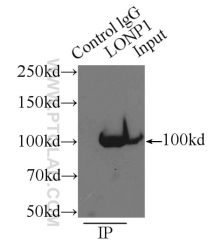
## Selected Validation Data



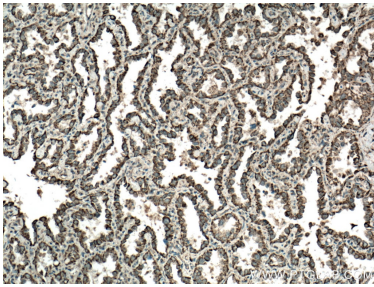
WB result of LONP1 antibody (15440-1-AP, 1:6000) with si-Control and si-LONP1 transfected Jurkat cells.



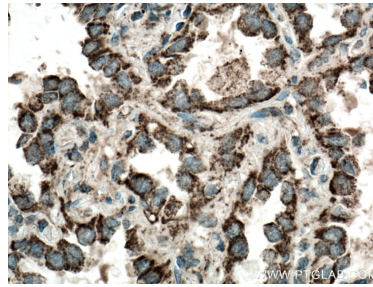
Various lysates were subjected to SDS PAGE followed by western blot with 15440-1-AP (LONP1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



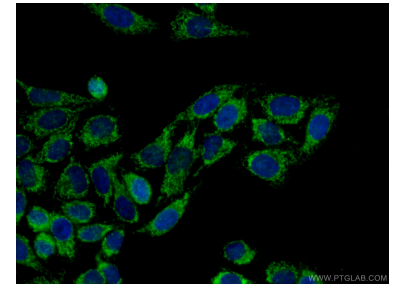
IP result of anti-LONP1 (IP:15440-1-AP, 3ug; Detection:15440-1-AP 1:1000) with mouse heart tissue lysate 9500ug.



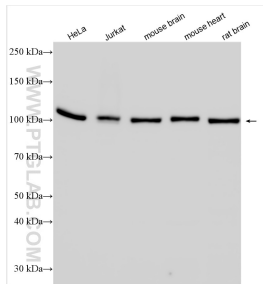
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 15440-1-AP (LONP1 antibody) at dilution of 1:200 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



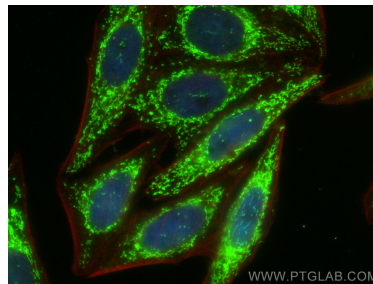
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 15440-1-AP (LONP1 antibody) at dilution of 1:200 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



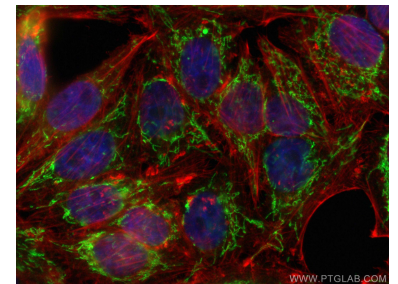
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using 15440-1-AP (LONP1 antibody) at dilution of 1:50 and CoraLite488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Various lysates were subjected to SDS PAGE followed by western blot with 15440-1-AP (LONP1 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using LONP1 antibody (15440-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using LONP1 antibody (15440-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-phalloidin (red).