

For Research Use Only

LONP1 Polyclonal antibody

Catalog Number: 15440-1-AP

Featured Product

95 Publications



Basic Information

Catalog Number:

15440-1-AP

Size:

150ul, Concentration: 500 ug/ml by Nanodrop;

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 ug for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

IF/ICC 1:50-1:500

Applications

Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

Cited Applications:

WB, IHC, IF, IP, CoIP

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, monkey, chicken

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/ICC : 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

*** 20ul sizes contain 0.1% BSA

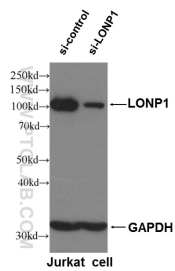
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

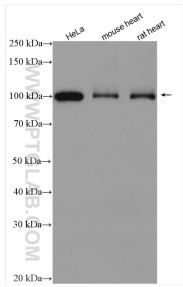
E: proteintech@ptglab.com
W: ptglab.com

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

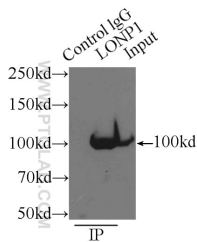
Selected Validation Data



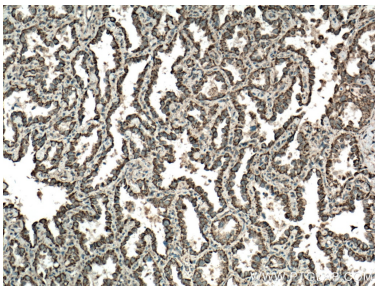
WB result of LONP1 antibody (15440-1-AP, 1:6000) with si-Control and si-LONP1 transfected Jurkat cells.



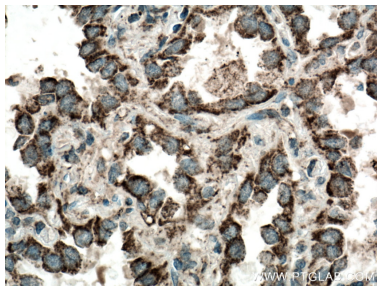
Various lysates were subjected to SDS PAGE followed by western blot with 15440-1-AP (LONP1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



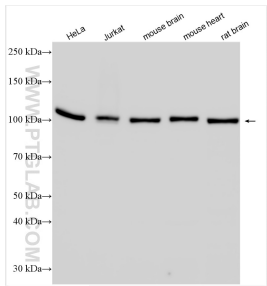
IP result of anti-LONP1 (IP:15440-1-AP, 3ug; Detection:15440-1-AP 1:1000) with mouse heart tissue lysate 9500ug.



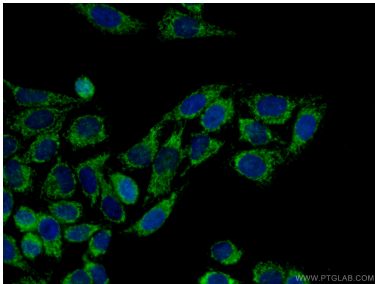
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 15440-1-AP (LONP1 antibody) at dilution of 1:200 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



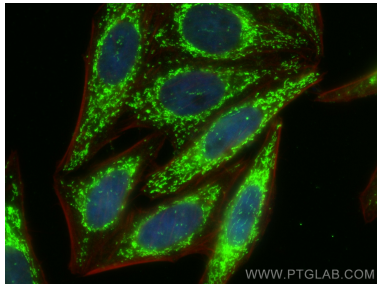
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 15440-1-AP (LONP1 antibody) at dilution of 1:200 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



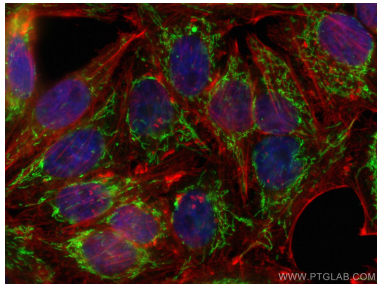
Various lysates were subjected to SDS PAGE followed by western blot with 15440-1-AP (LONP1 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



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



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).