

For Research Use Only

# LONP1 Monoclonal antibody

Catalog Number: 66043-1-Ig

Featured Product

11 Publications



## Basic Information

<b>Catalog Number:</b> 66043-1-Ig	<b>GenBank Accession Number:</b> BC000235	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 150ul, Concentration: 2000 ug/ml by Nanodrop and 1560 ug/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 9361	<b>CloneNo.:</b> 1C6C12
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P36776	<b>Recommended Dilutions:</b> WB 1:1000-1:5000 IHC 1:400-1:1600 IF/ICC 1:50-1:500
<b>Isotype:</b> IgG1	<b>Full Name:</b> lon peptidase 1, mitochondrial	
<b>Immunogen Catalog Number:</b> AG7306	<b>Calculated MW:</b> 106 kDa	
	<b>Observed MW:</b> 100 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, ELISA

**Cited Applications:**  
WB, IHC, IF, CoIP

**Species Specificity:**  
human, mouse, rat

**Cited Species:**  
human, mouse

**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 :** ROS1728 cells, HEK-293 cells, HSC-T6 cells, human heart tissue, human liver tissue, Jurkat cells, L02 cells, RAW 264.7 cells, NIH/3T3 cells

**IHC :** human lung cancer tissue, human heart tissue, human liver tissue

**IF/ICC :** C6 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 processively degraded (PMID:15870080).

## Notable Publications

Author	Pubmed ID	Journal	Application
Xiang Peng	39731912	Dev Cell	
Weiwei Zhu	38625722	Biomol Biomed	WB
Congxiao Zhang	39261902	J Cell Mol Med	WB, IHC

## 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

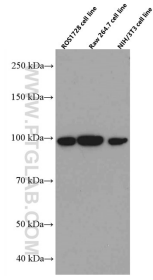
For technical support and original validation data for this product please contact:

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

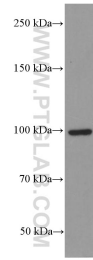
E: proteintech@ptglab.com  
W: ptglab.com

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

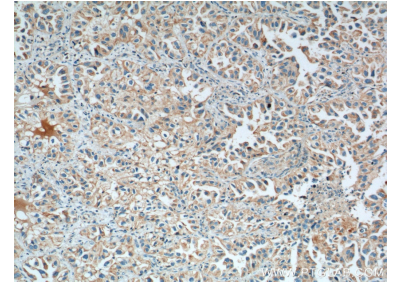
## Selected Validation Data



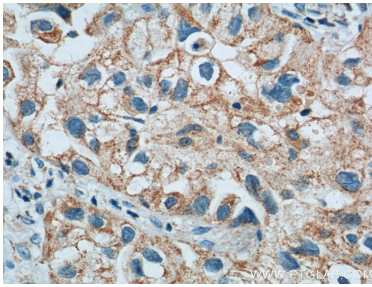
Various lysates were subjected to SDS PAGE followed by western blot with 66043-1-Ig (LONP1 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



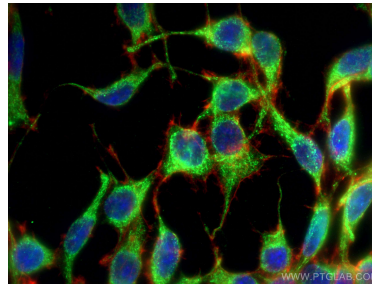
Jurkat cells were subjected to SDS PAGE followed by western blot with 66043-1-Ig (LONP1 Antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



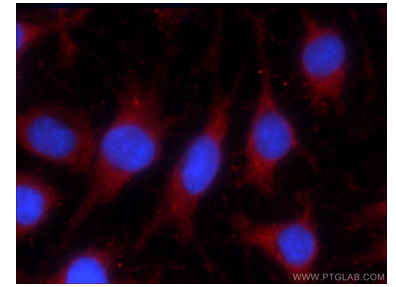
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66043-1-Ig (LONP1 Antibody) at dilution of 1:800 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66043-1-Ig (LONP1 Antibody) at dilution of 1:800 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed C6 cells using LONP1 antibody (66043-1-Ig, Clone: 1C6C12) at dilution of 1:200 and CoraLite® 488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), CL594-Phalloidin (red).



Immunofluorescent analysis of C6 cells using 66043-1-Ig (LONP1 antibody) at dilution of 1:25 and Rhodamine-Goat anti-Mouse IgG.