

For Research Use Only

# LONP1 Recombinant antibody

Catalog Number: 83552-2-RR



## Basic Information

<b>Catalog Number:</b> 83552-2-RR	<b>GenBank Accession Number:</b> BC000235	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 9361	<b>CloneNo.:</b> 240460G10
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P36776	<b>Recommended Dilutions:</b> WB 1:2000-1:10000 IHC 1:500-1:2000
<b>Isotype:</b> IgG	<b>Full Name:</b> Lon peptidase 1, mitochondrial	
<b>Immunogen Catalog Number:</b> AG7196	<b>Calculated MW:</b> 106 kDa	
	<b>Observed MW:</b> 100 kDa	

## Applications

**Tested Applications:**  
WB, IHC, FC (Intra), ELISA

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

**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, HepG2 cells, Jurkat cells, mouse brain tissue, rat brain tissue

**IHC :** human ovary cancer tissue,

## 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.

## Storage

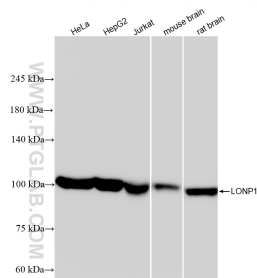
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
**Aliquoting is unnecessary for -20°C storage**

\*\*\* 20ul sizes contain 0.1% BSA

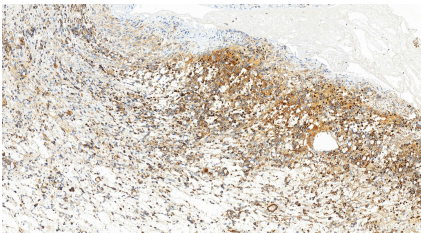
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

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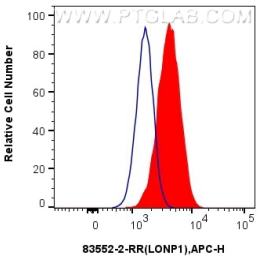
## Selected Validation Data



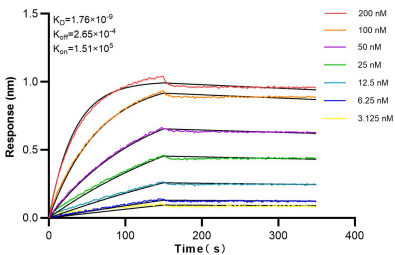
Various lysates were subjected to SDS PAGE followed by western blot with 83552-2-RR (LONP1 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human ovary cancer tissue slide using 83552-2-RR (LONP1 antibody) at dilution of 1:1000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1x10<sup>6</sup> U-251 cells were intracellularly stained with 0.25 ug LONP1 Recombinant antibody (83552-2-RR, Clone:240460G10) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Biolayer interferometry (BLI) kinetic assays of 83552-2-RR against Human LONP1 were performed. The affinity constant is 1.76 nM.