


## Product datasheet

# Anti-LONP1/Lon antibody ab224316

★★★★★ [1 Abreviews](#) [1 References](#) [6 Images](#)

### Overview

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<b>Product name</b>	Anti-LONP1/Lon antibody
<b>Description</b>	Rabbit polyclonal to LONP1/Lon
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, IHC-P, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human <b>Predicted to work with:</b> Cow 
<b>Immunogen</b>	Recombinant fragment corresponding to Human LONP1/Lon aa 350-550. Database link: <a href="#">P36776</a> <a href="#">Run BLAST with</a> <a href="#">Run BLAST with</a>
<b>Positive control</b>	WB: NIH/3T3, NBT-II, PC-12 and SK-MEL-30 cell lysate. ICC/IF: U-251 MG cells. IHC-P: Human duodenum, Fallopian tube and tonsil tissue.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), PBS
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab224316 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 0.25 - 2 µg/ml. Fixation/Permeabilization: PFA/Triton X-100.
IHC-P		1/500 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB	★★★★★ (1)	Use a concentration of 0.04 - 0.4 µg/ml. Predicted molecular weight: 106 kDa.

## Target

### Function

ATP-dependent serine protease that mediates the selective degradation of misfolded, unassembled or oxidatively damaged polypeptides as well as certain short-lived regulatory proteins in the mitochondrial matrix. May also have a chaperone function in the assembly of inner membrane protein complexes. Participates in the regulation of mitochondrial gene expression and in the maintenance of the integrity of the mitochondrial genome. Binds to mitochondrial promoters and RNA in a single-stranded, site-specific, and strand-specific manner. May regulate mitochondrial DNA replication and/or gene expression using site-specific, single-stranded DNA binding to target the degradation of regulatory proteins binding to adjacent sites in mitochondrial promoters. Endogenous substrates include mitochondrial steroidogenic acute regulatory (StAR) protein.

### Tissue specificity

Duodenum, heart, lung and liver, but not thymus.

### Involvement in disease

CODAS syndrome

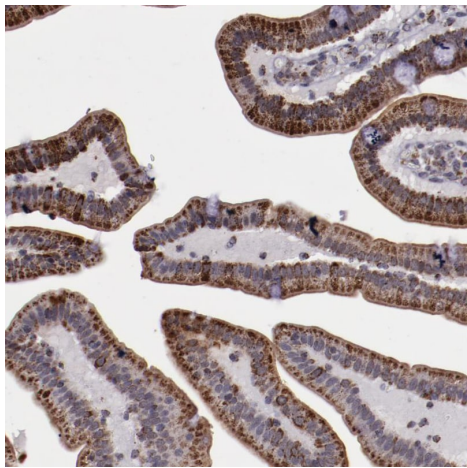
### Sequence similarities

Belongs to the peptidase S16 family.  
Contains 1 Lon domain.

### Cellular localization

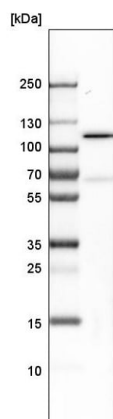
Mitochondrion matrix.

## Images



Paraffin embedded human duodenum tissue stained for LONP1/Lon with ab224316 (1/500 dilution) in immunohistochemical analysis.

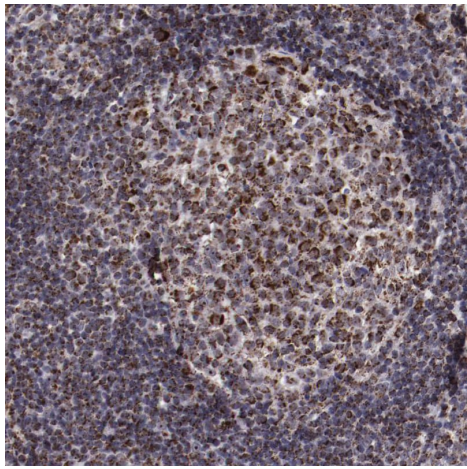
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LONP1/Lon antibody (ab224316)



Anti-LONP1/Lon antibody (ab224316) at 1/100 dilution + SK-MEL-30 cell lysate

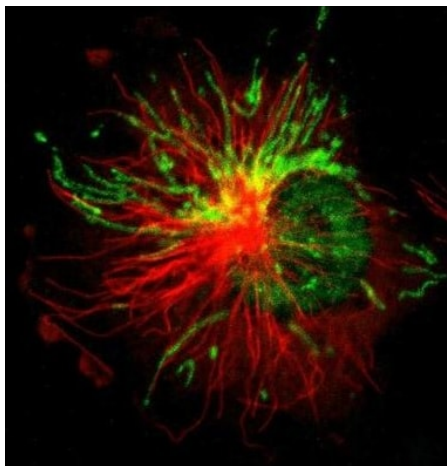
**Predicted band size: 106 kDa**

Western blot - Anti-LONP1/Lon antibody (ab224316)



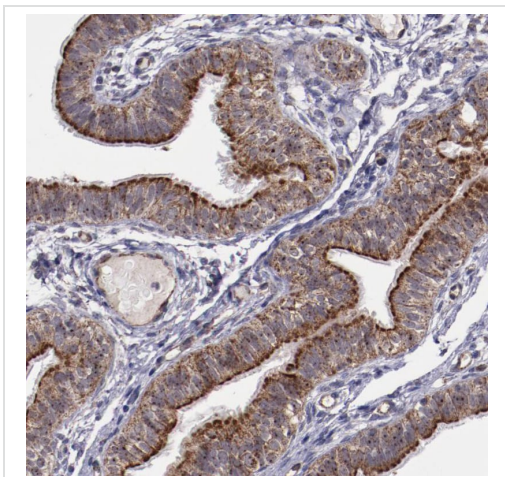
Paraffin embedded human tonsil tissue stained for LONP1/Lon with ab224316 (1/500 dilution) in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LONP1/Lon antibody (ab224316)



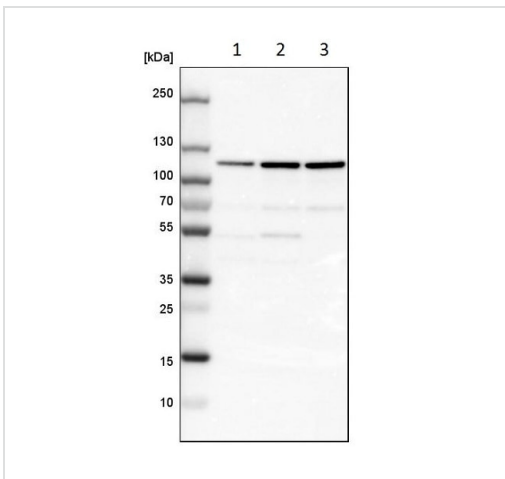
PFA-fixed/Triton X-100 permeabilized U-251 MG (human brain glioma cell line) cells stained for LONP1/Lon (green) using ab224316 (4  $\mu$ g/ml) in ICC/IF.

Immunocytochemistry/ Immunofluorescence - Anti-LONP1/Lon antibody (ab224316)



Paraffin embedded human fallopian tissue stained for LONP1/Lon with ab224316 (1/500 dilution) in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LONP1/Lon antibody (ab224316)



**All lanes :** Anti-LONP1/Lon antibody (ab224316) at 1/100 dilution

**Lane 1 :** NIH/3T3 (mouse embryo fibroblast cell line) cell lysate

**Lane 2 :** NBT-II cell lysate

**Lane 3 :** PC-12 (rat adrenal gland pheochromocytoma cell line) cell lysate

**Predicted band size:** 106 kDa

Western blot - Anti-LONP1/Lon antibody (ab224316)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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