For Research Use Only

LONP1 Monoclonal antibody

Catalog Number:66043-1-Ig Featured Product 7 Publications

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Basic Information

Catalog Number:
66043-1-Ig

Size:
2000 μg/ml

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG7306

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:
Protein G purification

CloneNo.:
1C6C12

Recommended Dilutions:
WB 1:1000-1:5000
IHC 1:400-1:1600
IF/ICC 1:10-1:100

Applications

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

Cited Applications:
WB, IHC, 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

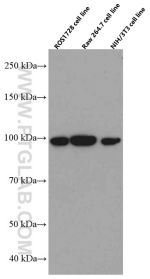
Author	Pubmed ID	Journal	Application
Soroosh Mozaffaritabar	38261146	J Physiol Biochem	WB
Nan Lin	38238825	Cancer Cell Int	WB
Attila Kolonics	38110905	BMC Neurosci	WB

Storage

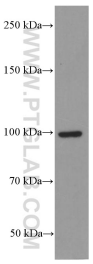
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

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

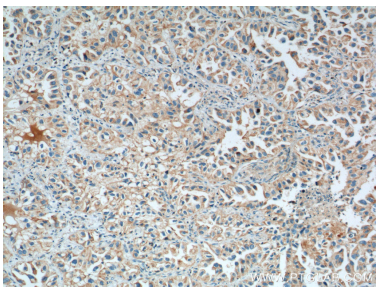
Selected Validation Data



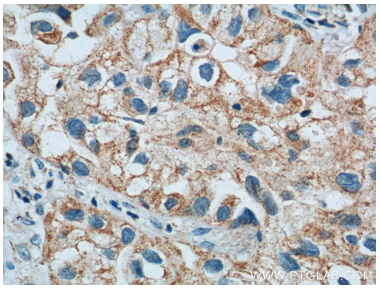
Various lysates were subjected to SDS PAGE followed by western blot with 66043-1-Ig (LONP1 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



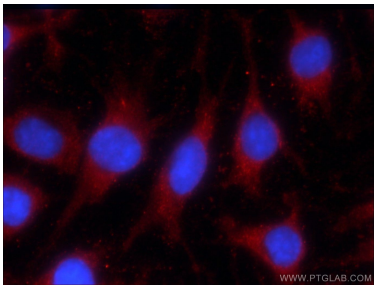
Jurkat cells were subjected to SDS PAGE followed by western blot with 66043-1-Ig (LONP1 Antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



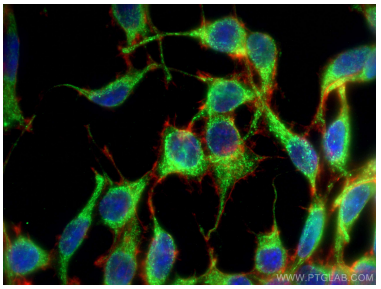
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66043-1-Ig (LONP1 Antibody) at dilution of 1:800 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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



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).