For Research Use Only

LONP1 Monoclonal antibody

Catalog Number:66043-1-Ig 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 1:10-1:100

Applications

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

Cited Applications:
CoIP, IHC, WB

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 : 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

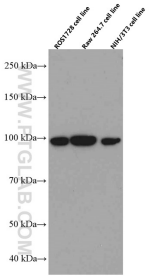
Author	Pubmed ID	Journal	Application
Soroosh Mozaffaritabar	38261146	J Physiol Biochem	WB
Nan Lin	38238825	Cancer Cell Int	WB
Attila Kolonics	38110905	BMC Neurosci	WB

Storage

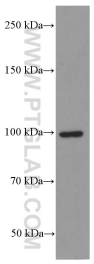
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

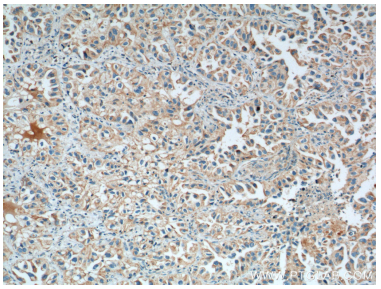
Selected Validation Data



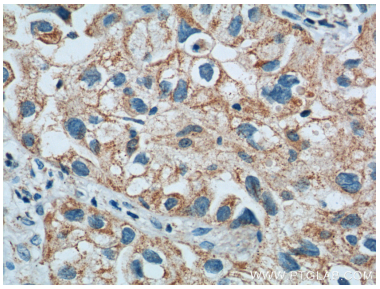
Various lysates were subjected to SDS PAGE followed by western blot with 66043-1-Ig (LONP1 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



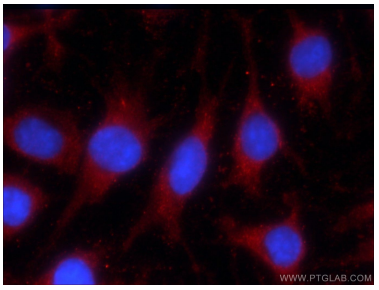
Jurkat cells were subjected to SDS PAGE followed by western blot with 66043-1-Ig (LONP1 Antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



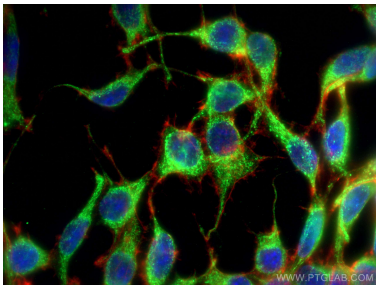
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66043-1-Ig (LONP1 Antibody) at dilution of 1:800 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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-phalloidine (red).