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.

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

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.
Aliquotting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA
Selected Validation Data

WB result of LONP1 antibody (15440-1-AP, 1:6000) with si-Control and si-LONP1 transfected Jurkat cells.

Various lysates were subjected to SDS PAGE followed by western blot with 15440-1-AP (LONP1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.

IP Result of anti-LONP1 (IP:15440-1-AP, 3ug; Detection:15440-1-AP 1:1000) with mouse heart tissue lysate 9500ug.

Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 15440-1-AP (LONP1 antibody) at dilution of 1:200 (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 15440-1-AP (LONP1 antibody) at dilution of 1:200 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using 15440-1-AP (LONP1 antibody) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).

Various lysates were subjected to SDS PAGE followed by western blot with 15440-1-AP (LONP1 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.

Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using LONP1 antibody (15440-1-AP) at dilution of 1:200 and CoralLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).