

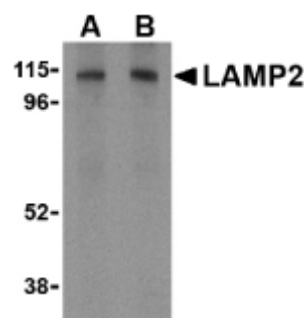
AP20058PU-N**Polyclonal Antibody to CD107b / LAMP2 (C-term) - Aff - Purified**

Alternate names:	LAMP-2, LAMP-2C, LAMPB, Lysosome-associated membrane glycoprotein 2
Quantity:	0.1 mg
Background:	Autophagy, the process of bulk degradation of cellular proteins through an autophagosomic-lysosomal pathway is important for normal growth control and may be defective in tumor cells. It is involved in the preservation of cellular nutrients under starvation conditions as well as the normal turnover of cytosolic components (1,2) and is negatively regulated by TOR (Target of rapamycin) (3). LAMP-2, a highly glycosylated protein associated with the lysosome (4), has recently been shown to be important in autophagy as mice deficient in this protein failed to convert autophagic vacuoles into vacuoles (5) leading to impaired degradation of long-lived proteins. This correlates with the finding that human LAMP-2 deficiency causing Danon's disease is associated with the accumulation of autophagic material in striated myocytes (6). LAMP-2 exists in multiple isoforms (7).
Uniprot ID:	P13473
NCBI:	NP_054701
GeneID:	3920
Host / Isotype:	Rabbit / IgG
Immunogen:	LAMP2 antibody was raised against a 17 amino acid peptide from near the carboxy of Human LAMP-2 (NP_054701).
Format:	State: Liquid purified Ig fraction Purification: Immunoaffinity Chromatography Buffer System: PBS containing 0.02% Sodium Azide as preservative
Applications:	ELISA. Western blot: Beclin-1 antibody can be used for the detection of Beclin-1 at 1–2 µg/ml. Despite its predicted size, LAMP-2 migrates at 115kDa in SDS-PAGE. <i>Positive Control:</i> HepG2 Cell Lysate. Immunocytochemistry: 10 µg/ml. <i>Positive Control:</i> HepG2 Cell Lysate. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	Recognizes CD107b/LAMP2 (C-term).
Species Reactivity:	Tested: Human, Mouse.
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
General Readings:	1. Gozuacik D, Kimchi A. Autophagy as a cell death and tumor suppressor mechanism. <i>Oncogene</i> . 2004 Apr 12;23(16):2891-906. PubMed PMID: 15077152. 2. Kisen GO, Tessitore L, Costelli P, Gordon PB, Schwarze PE, Baccino FM, et al. Reduced autophagic activity in primary rat hepatocellular carcinoma and ascites

hepatoma cells. *Carcinogenesis*. 1993 Dec;14(12):2501-5. PubMed PMID: 8269618.
 3. Kamada Y, Funakoshi T, Shintani T, et al. Tor-mediated induction of autophagy via Apg1 protein kinase complex. *J. Cell. Biol.* 2000; 150:1507-13.
 4. Granger BL, Green SA, Gabel CA, et al. Characterization and cloning of the lgp110, a lysosomal glycoprotein from mouse and rat cells. *J. Biol. Chem.* 1990; 265:12036-43.
 5. Tanaka Y, Guhde G, Suter A, et al. Accumulation of autophagic vacuoles and cardiopathy in LAMP-2-deficient mice. *Nature* 2000; 902-6.
 6. Nishino I, Fu J, Tanji K, Yamada T, Shimojo S, Koori T, et al. Primary LAMP-2 deficiency causes X-linked vacuolar cardiomyopathy and myopathy (Danon disease). *Nature*. 2000 Aug 24;406(6798):906-10. PubMed PMID: 10972294.
 7. Gough NR, Hatem CL, Fambrough DM. The family of LAMP-2 proteins arises by alternative splicing from a single gene: characterization of the avian LAMP-2 gene and identification of mammalian homologs of LAMP-2b and LAMP-2c. *DNA Cell Biol.* 1995 Oct;14(10):863-7. PubMed PMID: 7546292.

Pictures:

Western blot analysis of LAMP-2 in HepG2 cell lysate with LAMP-2 antibody at (A) 1 and (B) 2 ug/ml.



Immunocytochemistry of LAMP-2 in HepG2 cells with LAMP-2 antibody at 10 ug/ml.

