10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

LAMP3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1827A

Product Information

Application	WB, E
Primary Accession	Q9UQV4
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	44346
Antigen Region	8-38

Additional Information

Gene ID	27074
Other Names	Lysosome-associated membrane glycoprotein 3, LAMP-3, Lysosomal-associated membrane protein 3, DC-lysosome-associated membrane glycoprotein, DC LAMP, Protein TSC403, CD208, LAMP3, DCLAMP, TSC403
Target/Specificity	This LAMP3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 8-38 amino acids from the N-terminal region of human LAMP3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	LAMP3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LAMP3
Synonyms	DCLAMP, TSC403
Function	Lysosomal membrane glycoprotein which plays a role in the unfolded

	protein response (UPR) that contributes to protein degradation and cell survival during proteasomal dysfunction (PubMed:25681212). Plays a role in the process of fusion of the lysosome with the autophagosome, thereby modulating the autophagic process (PubMed:24434718). Promotes hepatocellular lipogenesis through activation of the PI3K/Akt pathway (PubMed:29056532). May also play a role in dendritic cell function and in adaptive immunity (PubMed:9768752).
Cellular Location	Cell surface. Lysosome membrane; Single-pass type I membrane protein. Cytoplasmic vesicle membrane; Single-pass type I membrane protein. Early endosome membrane; Single-pass type I membrane protein. Note=During dendritic cell maturation, detected on cytoplasmic vesicles (the MHC II compartment) that contain MHC II proteins, LAMP1, LAMP2 and LAMP3 (PubMed:9768752). Detected on lysosomes in mature dendritic cells (PubMed:9768752).
Tissue Location	Detected in tonsil interdigitating dendritic cells, in spleen, lymph node, Peyer's patches in the small instestine, in thymus medulla and in B-cells (at protein level). Expressed in lymphoid organs and dendritic cells. Expressed in lung. Up-regulated in carcinomas of the esophagus, colon, rectum, ureter, stomach, breast, fallopian tube, thyroid and parotid tissues

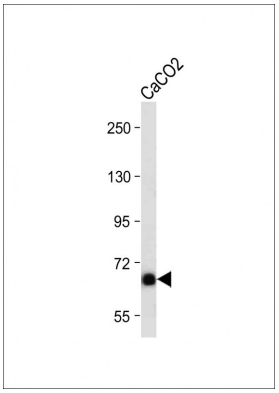
Background

LAMP3 is a member of a family of membrane glycoproteins. It may change lysosome function after the transfer of peptide-MHC class II molecules to the surface of dendritic cells.

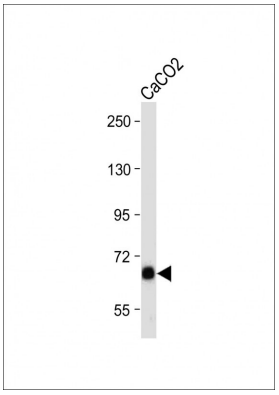
References

References for protein:
1.Elliott,B., Clin. Cancer Res. 13 (13), 3825-3830 (2007)
2.Zhu,L.C., Hum. Pathol. 38 (2), 260-268 (2007)
3.Arruda,L.B., J. Immunol. 177 (4), 2265-2275 (2006)
References for U251 cell line:
1. Westermark B.; Pontén J.; Hugosson R. (1973).” Determinants for the establishment of permanent tissue culture lines from human gliomas”. Acta Pathol Microbiol Scand A. 81:791-805. [PMID: 4359449].
2. Pontén, J.,Westermark B. (1978).” Properties of Human Malignant Glioma Cells in Vitro”. Medical Biology 56: 184-193.[PMID: 359950].
3. Geng Y.;Kohli L.; Klocke B.J.; Roth K.A.(2010). “Chloroquine-induced autophagic vacuole accumulation and cell death in glioma cells is p53 independent”. Neuro Oncol. 12(5): 473–481.[PMID: 20406898].

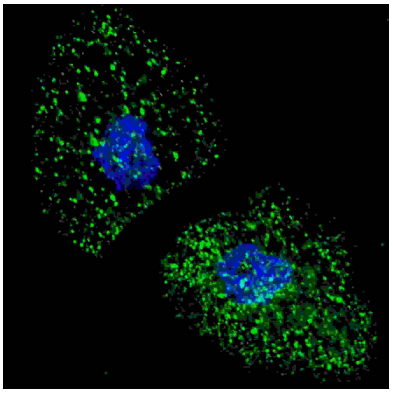
Images



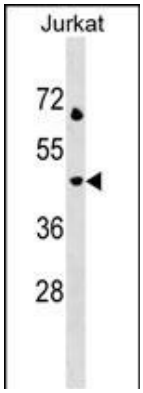
Anti-LAMP3 Antibody (N-term) at 1:2000 dilution + CaCO2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 44 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Anti-LAMP3 Antibody (N-term) at 1:2000 dilution + CaCO2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 44 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Fluorescent image of U251 cells stained with LAMP3 (N-term) antibody. U251 cells were treated with Chloroquine (50 µM,16h), then fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with AP1827a LAMP3 (N-term) primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 µg/ml, 5 min). LAMP3 immunoreactivity is localized to autophagic vacuoles in the cytoplasm of U251 cells.



LAMP3 Antibody (N-term) (Cat. #AP1827a) western blot analysis in Jurkat cell line lysates (35ug/lane).This demonstrates the LAMP3 antibody detected the LAMP3 protein (arrow).

Citations

- Hypoxic regulation and prognostic value of LAMP3 expression in breast cancer.
- The potential role of lysosome-associated membrane protein 3 (LAMP3) on cardiac remodelling.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.