Data Sheet (Cat.No.TMAY-01759)

TargetMol

Anti-LAMP1 Antibody (8V752)

Product Details

Ig Type:	Mouse IgG1
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	8V752
Purification:	Protein A

Applications

Verified Activity:	1. Immunochemical staining of human LAMP1 in human placenta with mouse monoclonal antibody (1:60, formalin-fixed paraffin embedded sections). The left panel: tissue incubated with primary antibody; The right panel: tissue incubated with the mixture of primary antibody and antigen (recombinant protein). 2. Immunochemical staining of human LAMP1 in human breast carcinoma with mouse monoclonal antibody (1:60, formalin-fixed paraffin embedded sections). 3. Confocal immunofluorescence analysis of Human LAMP1 in MCF7 cells. Cells were fixed with 4% PFA, permeabilzed with 1% Triton X-100 in PBS, blocked with 10% serum, and incubated with Mouse anti-Human LAMP1 monoclonal antibody (1:60). Then cells were stained with the Alexa Fluor® 488-conjugated Goat Anti-mouse IgG secondary antibody, countstained with Alexa Fluor® 546-conjugated phallotoxins (red) and DAPI (blue). Positive staining was localized to lysosome membrane. 4. LAMP1 was immunoprecipitated using: -Lane A:0.5 mg Hela Whole Cell Lysate. -Lane B:0.5 mg Jurkat Whole Cell Lysate. -Lane C:0.5 mg Daudi Whole Cell Lysate. -4 µL anti-LAMP1 mouse monoclonal antibody and 15 µl of 50 % Protein G agarose. -Primary antibody: -Anti-LAMP1 mouse monoclonal antibody, at 1:100 dilution. -Secondary antibody: -Dylight 800-labeled antibody to Mouse IgG (H+L), at 1:7500 dilution. -Developed using the odyssey technique. -Performed under reducing conditions. -Predicted band size: 45 kDa. -Observed band size: 113 kDa
Application:	ELISA,ELISA(Det),ICC/IF,IHC-P,IP
Recommended	ELISA: 1:1000-1:2000; IHC-P: 1:50-1:200; ICC-IF: 1:20-1:100; IP: 1-4 µL/mg of lysate; ELISA (Det): 1:1000-1:10000

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Human LAMP1 protein (TMPY-01253)
Antigen Species:	Human
Synonyms:	lysosomal-associated membrane protein 1

Research Background

Lysosome-associated membrane glycoprotein 1, also known as CD107 antigen-like family member A, CD107a, and LAMP1, is a single-pass type I membrane protein that belongs to the LAMP family. CD107a is expressed largely in the endosome-lysosome membranes of cells but is also found on the plasma membrane (1-2% of total LAMP1). LAMP1 has been implicated in a variety of cellular functions, including cancer metastasis. It has been proposed LAMP1 serves as a therapeutic agent for some cancers, as well as a marker for lysosomal storage disorders and different cell types such as cytotoxic T cells. LAMP2, also known as CD107b, may also play a role in tumor cell metastasis and functions in the protection, maintenance, and adhesion of the lysosome. Cell surface LAMP1 and LAMP2 have been shown to promote adhesion of human peripheral blood mononuclear cells (PBMC) to vascular endothelium, therefore they are possibly involved in the adhesion of PBMCs to the site of inflammation. LAMP-1 is a glycoprotein highly expressed in lysosomal membranes. The present study was initiated to test LAMP-1 mRNA and protein levels in post mortem frontal cortex (area 8) of Alzheimer's disease (AD) stages I-IIA/B and stages V-VIC of Braak and Braak, compared with age-matched controls. LAMP-1 occurred in microglia and multinucleated giant cells in one AD case in which amyloid burden was cleared following beta A-peptide immunization. Also, LAMP-1 has been suggested to be a cell surface receptor for a specific amelogenin isoform, leucine-rich amelogenin peptide, or LRAP. LAMP-1 can serve as a cell surface binding site for amelogenin on dental follicle cells and cementoblasts.