Datasheet for ABIN361797

anti-LAMP1 antibody

3 Images | 2 Publications

Go to Product page

Overview

Quantity:	100 µg
Target:	LAMP1
Reactivity:	Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This LAMP1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunoprecipitation (IP), Immunocytochemistry (ICC)

Product Details

Immunogen:	Rat liver lysosomal membrane preparations
Clone:	Ly1C6
Isotype:	IgG1
Specificity:	Detects ~120 kDa.
Cross-Reactivity:	Hamster, Human, Mouse, Rat
Purification:	Protein G Purified

Target Details

Target:	LAMP1
Alternative Name:	LAMP1 (LAMP1 Products)

Target Details

Background:	Lysosme associated membrane proteins, or LAMP1 and LAMP2, are major constituents of the lysosomal membrane. The two have closely related structures, with 37 % sequence homology (2). They are both transmembrane glycoproteins that are localized primarily in lysosomes and late endosomes. Newly synthesized molecules are mostly transported from the trans-Golgi network directly to endosomes and then to lysosomes. A second pathway involves the lamps being delivered from the Golgi to the cell surface, and then along the endocytic pathway to the lysosomes. A minor pathway involves transport via the plasma membrane (3). Upon stimulation, a rapid translocation of intracellular LAMPs to the cell membrane is dependent on a carboxylterminal tyrosine ba based motif (YXXI) (1). If there is a disturbance in this spacing, lysosome localization of LAMP1 is abolished and the mutant protein then cycles between the membrane and the endosome (3). This stimulation has also been shown to have an associated release of histamine, leukotriene C (4) and prostaglandin D (2), which shows that LAMP-1 and LAMP-2 are activation markers for normal mast cells (1). They have also been linked to the inflammatory response in that they promote adhesion of human peripheral blood mononuclear cells (PBMC) to vascular endothelium, and therefore possibly the adhesion of PBMC to the site of inflammation (4).
Gene ID:	25328
NCBI Accession:	NP_036989
UniProt:	P14562
Pathways:	Autophagy

Application Details

Application Notes:	• WB (1:1000) • ICC/IF (1:1000) • optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml was sufficient for detection of LAMP1 in rat liver miscrosome by ECL immunoblot analysis.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 mg/mL

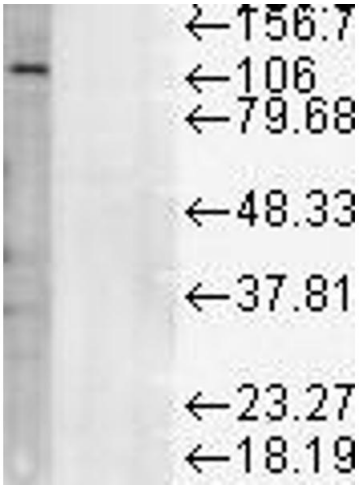
Handling

Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	-20°C

Publications

Product cited in:	Harada, Hiasa: "Immunological identification of vesicular nucleotide transporter in intestinal L cells." in: **Biological & pharmaceutical bulletin**, Vol. 37, Issue 7, pp. 1090-5, (2014) (PubMed). Hiasa, Togawa, Miyaji, Omote, Yamamoto, Moriyama: "Essential role of vesicular nucleotide transporter in vesicular storage and release of nucleotides in platelets." in: **Physiological reports**, Vol. 2, Issue 6, (2014) (PubMed).

Images



Western Blotting

Image 1. LAMP1 WB 1 in 1000 rat liver micosomes 20ug copy.

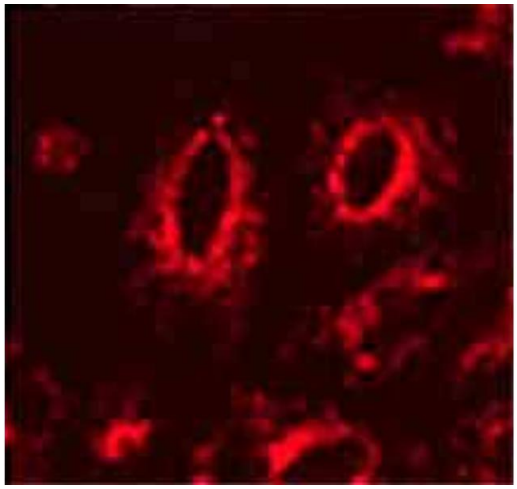
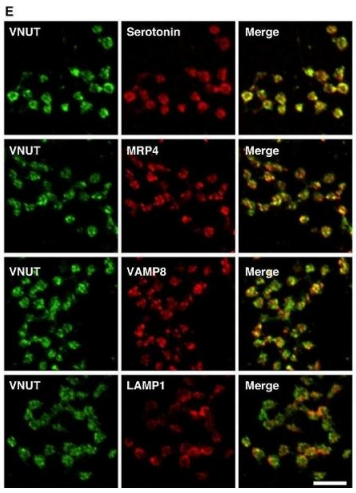


Image 2. Lamp1 (Ly1C6), IF in transfected HeLa cells Courtesy of Robert H Edwards, U of Cali, San Fran School of Medicine.



Immunofluorescence (Cultured Cells)

Image 3. Vesicular nucleotide transporter (VNUT) was present in the dense granules of human platelets. (A) The membrane fraction from human platelets (20 µg) was electrophoresed on a 10 % polyacrylamide gel, transferred to a nitrocellulose membrane, and then subjected to Western blot analysis with anti-hVNUT antibodies. The preabsorbed antibodies did not bind to the protein (right lane). The position of VNUT is marked by an arrow. (B) The membrane fraction from human platelets (30 µg) was heat treated and then incubated at 37 °C in the presence or absence of N-glycosidase F as described in the Materials and Methods. Samples were then subjected to Western blot analysis with anti-hVNUT antibodies. (C) Indirect immunofluorescence microscopy revealed that VNUT was expressed in platelets. (Inset) Shown is control staining with normal serum. Pictures merged with Nomarski images are shown. Typical punctate localizations are marked by arrowheads (scale bars: 5 µm). (D) Immunoelectron microscopy revealed that VNUT localized to granules in platelets (Arrows). (Inset) Shown is background labeling with control serum. M, mitochondria (scale bars: 500 nm) (E) Human platelets were double-immunostained with antibodies against VNUT (green) and markers (red): serotonin, MRP4, VAMP8, and LAMP1. Merged images are

also shown (scale bar: 5 µm) - figure provided by CiteAb.

Source: PMID24907298