

REAGENTS PROVIDED

NorthernLights™ 637 (NL637)-conjugated sheep polyclonal anti-Human LAMP1. Supplied as a 10X solution of antibody in 0.5 mL PBS containing 0.09% sodium azide.

Source: Polyclonal Sheep IgG

STORAGE

Reagents are stable for **twelve months** from date of receipt when stored in the dark at 2-8 °C.

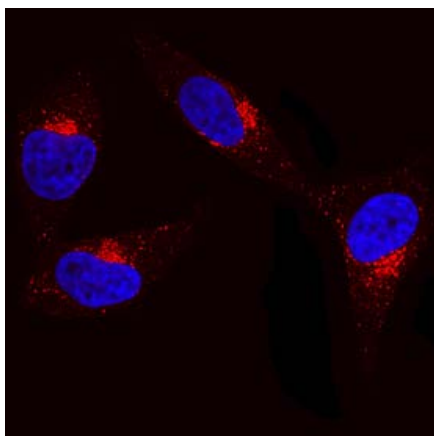
INTENDED USE

Designed to visualize the expression of human LAMP1 by fluorescence microscopy for staining cells and tissues. Conjugated LAMP1 antibodies are ideal for immunocytochemistry colocalization studies in lysosomes.

PRODUCT DESCRIPTION

This antibody was produced in sheep immunized with NS0-derived recombinant human LAMP1 (Ala28-Asn380; Accession # P11279). The antigen affinity-purified antibody was then conjugated to fluorochrome NL637. The spectral characteristics of NL637 are provided, along with those of Cy5™ and APC for comparison.

Fluorochrome	Absorption Maximum (nm)	Emission Maximum (nm)
NL637	637	658
APC	645	660
Cy5	650	670



Sheep anti-human LAMP1/CD107a

Immunofluorescent detection of LAMP1 (red color) in fixed HeLa cells. Labeling is confined to lysosomes. Nuclei were labeled with DAPI (blue color).

BACKGROUND INFORMATION

Lysosome associated membrane protein 1 (LAMP1), also known as CD107a, is a 100-130 kDa member of the LAMP family of glycoproteins. It is expressed in lysosomal and plasma membranes of macrophages, NK and T-cells, and with LAMP2, is essential for the formation of phagolysosomes. On the cell surface, it also presents carbohydrates to selectins. Mature human LAMP1 is a 389 amino acid (aa) type I transmembrane glycoprotein. It contains a 354 aa luminal/extracellular domain (ECD) (aa 28-381) and a 12 aa cytoplasmic tail (aa 405-416). The ECD has two large looping regions (aa 28-193 and 227-381) plus multiple N- and O-linked glycosylation sites. There is one potential splice variant that shows a 26 aa substitution in the signal sequence. Over aa 28-380, human LAMP1 shares 64% aa identity with mouse LAMP1.

FLUORESCENT STAINING VALIDATION

This antibody has been tested for immunofluorescent detection of LAMP1 in HeLa cells fixed in 2% formaldehyde. Cells were incubated with sheep anti-human LAMP1 antibody conjugated to NL6377 at a final concentration of 1X (1:10 dilution) overnight at 4 °C. After washing with PBS, cells were counterstained with DAPI to label cell nuclei. If a staining volume of 250 μ L is used, this vial can be used for 20 tests; 100 tests can be done in a staining volume of 50 μ L.

Warning: Contains sodium azide as a preservative. Sodium azide may react with lead and copper plumbing to form explosive metal azides. Flush with large volumes of water during disposal.

FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

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1-800-343-7475

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