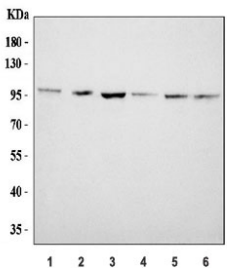
CD107b Antibody / Lysosomal Membrane Marker Antibody (RQ7090)

Catalog No.	Formulation	Size
RQ7090	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P13473
Applications	Western blot: 0.5-1ug/ml Direct ELISA: 0.1-0.5ug/ml
Limitations	This CD107b Antibody / Lysosomal Membrane Marker Antibody is available for research use only.



CD107b Antibody Human Cancer Cell WB. Western blot testing of human U-87 MG (lane 1), PC-3 (lane 2), 293T (lane 3), Jurkat (lane 4), HepG2 (lane 5), and HeLa (lane 6) cell lysates using CD107b antibody detected a prominent band at approximately 95-100 kDa in all samples. Although the predicted core protein is smaller, CD107b/LAMP2 undergoes extensive N-linked glycosylation, resulting in an apparent molecular weight that commonly ranges from approximately 45-110 kDa depending on glycosylation status and cell type. The observed bands are consistent with the mature glycosylated form of CD107b. This CD107b Antibody, also called a Lysosomal Membrane Marker Antibody, is suitable for studies of lysosome biology, autophagy, intracellular membrane trafficking, and immune cell activation.

Description

CD107b Antibody / Lysosomal Membrane Marker Antibody recognizes CD107b, also known as Lysosome Associated Membrane Protein 2 (LAMP2), one of the most abundant glycoproteins of the lysosomal membrane. CD107b is broadly expressed in mammalian cells, where it contributes to lysosome stability, intracellular protein degradation, membrane

trafficking, and autophagy. The LAMP2 gene gives rise to three major splice variants, LAMP2A, LAMP2B, and LAMP2C, which share a common luminal domain while possessing distinct cytoplasmic tails that confer specialized biological functions. Antibodies recognizing the common region of LAMP2 detect all major isoforms, making CD107b an excellent lysosomal membrane marker for a wide range of research applications.

Within cells, CD107b protects the lysosomal membrane from degradation by luminal hydrolases through its extensively glycosylated extracellular domain. It also participates in lysosome maturation, endosomal trafficking, autophagosome-lysosome fusion, and intracellular recycling pathways. Individual isoforms perform specialized functions, including chaperone-mediated autophagy, muscle and cardiac lysosome function, and lysosomal nucleic acid transport. Consequently, CD107b is routinely used to evaluate lysosomal abundance, distribution, and integrity in studies of autophagy, protein homeostasis, and cellular stress responses.

In immunology, CD107b is a well-established marker of lysosomal exocytosis and immune cell activation. During degranulation, cytotoxic T lymphocytes, natural killer cells, macrophages, and other immune cells transiently express CD107b on the cell surface as lysosomal membranes fuse with the plasma membrane. For this reason, CD107b antibodies are widely used in flow cytometry and related assays to assess cytotoxic function, degranulation, and immune activation. Altered expression of CD107b has also been associated with cancer, inflammatory disorders, neurodegenerative diseases, and inherited lysosomal storage disorders, underscoring its importance in both basic and translational research.

A CD107b Antibody is a valuable research tool for investigating lysosome biology, autophagy, intracellular membrane trafficking, immune cell degranulation, cytotoxic lymphocyte function, and diseases involving lysosomal dysfunction.

For research focused specifically on chaperone-mediated autophagy, see our LAMP2A Antibody / Chaperone-Mediated Autophagy Receptor Antibody page.

Application Notes

Optimal dilution of the CD107b Antibody / Lysosomal Membrane Marker Antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids D128-F410) was used as the immunogen for the CD107b antibody.

Storage

After reconstitution, the CD107b antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

CD107b antibody, LAMP2 antibody, Lysosomal Membrane Marker antibody, Lysosome Associated Membrane Protein 2 antibody, Lysosome Associated Membrane Glycoprotein 2 antibody

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