

Recombinant Mouse LAMP1/CD107a Protein (His Tag)

Catalog Number: PKSM041307

Note: Centrifuge before opening to ensure complete recovery of vial contents.

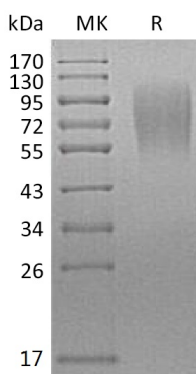
Description

Species	Mouse
Source	HEK293 Cells-derived Mouse LAMP1/CD107a protein Leu25-Asn370, with an C-terminal His
Calculated MW	38.6 kDa
Observed MW	55-110 kDa
Accession	P11438
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Reconstitution	Please refer to the specific buffer information in the printed manual. Please refer to the printed manual for detailed information.

Data



Background

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Lysosomal associated membrane protein 1 (LAMP1) is an approximately 120 kDa transmembrane glycoprotein that is a major protein component of lysosomal membranes. Mature mouse LAMP1 consists of a 346 amino acid (aa) intraluminal domain (ECD), a 24 aa transmembrane segment, and a 12 aa cytoplasmic tail. Its luminal domain is organized into two heavily N-glycosylated regions separated by a Ser/Pro-rich linker that carries a minor amount of O-linked glycosylation. Within the luminal domain, mouse LAMP1 shares approximately 64% and 82% aa sequence identity with human and rat LAMP1, respectively. The sorting of LAMP1 to lysosomes relies on a tyrosine motif in the cytoplasmic tail. In cytotoxic T cells and mast cells, LAMP1 is expressed in the membranes of intracellular granules that contain effector molecules such as perforin, granzymes, eicosanoids, and histamine. A glycoform of LAMP1 known as M150 is expressed on the surface of activated macrophages where it promotes T cell co-stimulation and a Th1 biased immune response. Exposure of epithelial cells to pathogenic *Neisseria* bacteria induces the redistribution of LAMP1 to the cell surface where it can be cleaved by the *Neisseria* IgA1 protease.