

## Summary

Name	LAMP1/CD107a/Lysosome-associated Membrane Glycoprotein 1	
Purity	Greater than 95% as determined by reducing SDS-PAGE	
Endotoxin level	<1 EU/µg as determined by LAL test.	
Construction	Recombinant Mouse Lysosome-associated Membrane Glycoprotein 1 is produced by our Mammalian expression system and the target gene encoding Leu25-Asn370 is expressed with a 6His tag at the C-terminus. P11438	
Accession #		
Host	Human Cells	
Species	Mouse	
Predicted Molecular Mass	38.6 KDa	
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution of PBS, pH 7.4.	
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.	
Stability&Storage	Store at $\leq$ -70°C, stable for 6 months after receipt. Store at $\leq$ -70°C, stable for 3 months under sterile conditions after opening. Please minimize freeze-thaw cycles.	
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles. Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.	

## **SDS-PAGE** image

kDa	MK	R
170 130 95 72 55	1111	(19)
43		1000
34	-	6.00
26	-	
17		



## Background

Alternative Names	Lysosome-associated membrane glycoprotein 1; LAMP-1; Lysosome-associated membrane protein 1; 120 kDa lysosomal membrane glycoprotein; CD107 antigen- like family member A; LGP-120; Lysosomal membrane glycoprotein A; LGP-A; P2B; CD107a
Background	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) intralumenal domain (ECD), a 24 aa transmembrane segment, and a 12 aa cytoplasmic tail. Its lumenal 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 lumenal 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.

## Note

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