

## LAMP2/CD107b Protein, Mouse (HEK293, His)

Cat. No.:	HY-P74781
Synonyms:	Lysosome-Associated Membrane Glycoprotein 2; LAMP-2; CD107b
Species:	Mouse
Source:	HEK293
Accession:	P17047 (L26-N379)
Gene ID:	16784
Molecular Weight:	70-80 kDa

### PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/ $\mu$ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	LAMP2/CD107b protein, a lysosomal membrane glycoprotein, plays a crucial role in lysosome biogenesis, lysosomal pH regulation, and autophagy. Acting as a direct inhibitor of the proton channel TMEM175, LAMP2 facilitates lysosomal acidification, optimizing hydrolase activity. Additionally, it is a key regulator of chaperone-mediated autophagy, binding target proteins like GAPDH, NLRP3, and MLLT11, and guiding them for lysosomal degradation. Functioning downstream of chaperones such as HSPA8/HSC70, LAMP2 aids in the recruitment of substrate proteins to lysosomes. LAMP2 is vital for lysosomal protein degradation in response to starvation and is essential for the fusion of autophagosomes with lysosomes during autophagy. Its absence leads to impaired fusion and inefficient degradation of autophagic contents. Furthermore, LAMP2 contributes to MHCII-mediated presentation of exogenous antigens. Structurally, LAMP2 exists as a monomer and forms large homooligomers, interacting with proteins like HSPA8, HSP90, MLLT11, ABCB9, FURIN, and TMEM175 to execute its diverse cellular functions.
------------	--

---

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA