

# 可溶性型リソソーム膜糖タンパク質 (lamp-2)のラット肝リソソームからの 精製とその性質

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*Biochemistry and Molecular Biology International* 46 ( 1 ),  
197-206 (1998)

## **Purification and characterization of a soluble form of lysosome-associated membrane glycoprotein-2 (lamp-2) from rat liver lysosomal contents.**

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**ABSTRACT** Lysosomal membrane of rat liver contains a highly glycosylated protein referred to as lamp-2. Lamp-2 occurs to a significant extent in a soluble fraction of rat liver lysosomes. The soluble form of lamp-2 (SF-lamp-2) was purified to electrophoretic homogeneity. An apparent molecular weight  $M_r$  of SF-lamp-2 on sodium dodecyl sulfate-polyacrylamide gel electrophoresis was determined to be 91,000 which is 5,000 less than that of the membranous form of lamp-2 (MF-lamp-2). SF- and MF-lamp-2 were very similar to each other in terms of sialic acid content,  $\text{NH}_2$ -terminal amino acid sequence and isoelectric point. Gel filtration data indicated that native SF-lamp-2 has an  $M_r = 360,000$ . Taken together, SF-lamp-2 forms a tetrameric structure consisting of a homogenous polypeptide lacking a membrane-spanning domain and a cytoplasmic tail near the COOH-terminus.

抄録 ラット肝リソソーム膜にはlamp-2と呼ばれる多数の糖鎖を有する糖タンパク質が存在する。lamp-2はリソソーム膜画分だけでなく可溶性画分にも存在する。本論文では可溶性のlamp-2 (SF-lamp-2)を精製して、その性質を明らかにした。SF-lamp-2は膜結合型lamp-2 (MF-lamp-2)のC-末端側にある膜結合部分と細胞質に突き出た短いペプチドが欠落していることが明らかになった。