ラット肝リソゾーム内容物に存在する酸性ホスファターゼの精製とその性質

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Purification and Characterization of Acid Phosphatase in Rat Liver Lysosomal Contents

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ABSTRACT Acid phosphatase in rat liver lysosomal contents. C-APase I, was purified about 5,700-fold over the homogenate with 8.0% recovery, to apparent homogeneity as determined from the pattern on polyacrylamide gel electrophoresis in the presence and in the absence of SDS. The purification procedures included; preparation of crude lysosomal contents, DEAE-Sephacel ion exchange chromatography, hydroxylapatite chromatography, and gel filtration with Sephacryl S-300. The enzyme is composed of three identical subunits with an apparent molecular weight of 48K. The enzyme contains about 11% carbohydrate and the carbohydrate moiety was composed of mannose, fucose, *N*-acetylglucosamine, and *N*-acetylgalactosamine in a molar ratio of 20 : 3 : 11 : 1. Sialic acid was not detected in the enzyme. Antisera against the purified C-APase I were raised in goat and the C-APase I was rapidly purified with high yield (10%) by using the specific antibodies coupled to Sepharose 6B.

抄録　ラット肝リソゾーム画分より酸性ホスファターゼをホモジネートに比べて，5,700倍に精製した。精製酵素は分子量48,000の3個のサブユニットで構成され，糖含有は約11%で，サブユニットあたり，20マンノース，3フロース，11N-アセチルグルコサミン，1N-アセチルガラクトサミンが含まれていた。さらに精製酵素を用いて抗体を調整し，免疫学的な検討を加えていた。

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