

ISOLATION AND DETERMINATION OF MOLECULAR WEIGHTS OF PHOSPHOLIPASES PRODUCED BY *CORYNEBACTERIUM PYOGENES HOMINIS*. M. Mára and F. Patočka .

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*C.pyogenes hominis* produces in the exponential growth phase various components of toxic nature /Patočka et al.1961/. A toxic filtrate has hemolytic, dermonecrotic, adsorption /on erythrocytes/, egg yolk-clarifying /phospholipase/ and Tween 20-splitting /lipase/ activities. The main toxic activities depend on lecithin-splitting phospholipase activity /Souček et al.1963/. Gel filtration was used for the separation of components and determination of m.w. of phospholipases. Phospholipase activity was separated on Sephadex C-100 from hemolysin and lipase. The so-called component alpha possessing the dermonecrotic, adsorption and "yolk" activities was then separated into 3 components alpha 1, alpha 2 and alpha 3. Alpha 1 was present only in endoplasmic material or in highly concentrated filtrates, it possesses relatively high "yolk" activity and less marked other two activities. has a m.w. higher than 400.000. Alpha 2 with prominent adsorption and dermonecrotic activities and very less marked "yolk" activity has a m.w. of 30.000 and correspond to the phospholipase D determined preliminarily by Souček et al./1964/by chromatography. Alpha 3 according to his marked capacity to clarify egg yolk-agar and practically no presence of both other activities, corresponds probably to the phospholipase A determined by Souček and Součková/1966/. The m.w. is about 18.000. The dependence of the production of the components on cultivation conditions was observed. The substitution of serum by Tween 20 in used Todd-Hewitt medium with serum has some influencing effect on the production of enzymes of lipid metabolism.