PRODUCTION AND PARTIAL CHARACTERIZATION OF PROTEASE FROM *PENICILLIUM AURANTIOGRISEUM*

Rodrigues, P.M.B.[1,2]; Lima, C.A.[1,2];Moreira, K.A.[2,3]; Motta, C.M.S.[4]; Lima Filho, J.L.[1,2];Porto, A.L.F.[2,4]; Carneiro-da-Cunha, M.G.[1, 2]

[1]Departamento de Bioquímica, UFPE, Recife-PE;
[2]Laboratório de Imunopatologia Keizo Asami- LIKA/UFPE, Recife-PE;
[3]Departamento de Morfologia e Fisiologia Animal, UFRPE,Recife-PE;
[4]Departamento de Micologia, UFPE, Recife-PE.

Fungus proteases are active in a wide pH range, show a high specificity to substrate and are normally extracellular. This last property makes their recovery from the fermentation broth very easy. These proteases carry out several functions, with application in the industry of food, detergent, hide, etc. This work aims to follow the kinetic of growth and production of protease from the *Penicillium aurantiogriseum* as well to characterize some physico-chemical properties. The culture growth was evaluated in a soy flour medium (0.5% w/v), pH 7.2 at 28ºC under orbital agitation at 150 rpm, from where the samples were collected each 12h during 96 hours. The protease activity was assayed at different pH and temperatures. Its thermal stability and shelf life was also studied. The maximum enzyme activity (190.1 U/mg) was observed in the fraction obtained at 84 hours of growth. The maximum activity of this fraction was obtained using Tris-HCl buffer 0.1 M, pH 9.0 at 50ºC. This protease was stable at temperatures ranging from 25ºC to 40ºC. These results suggest that *Penicillium aurantiogriseum* is a viable source of alkaline proteases of interest to hide and detergent industries due to its low costs production and characteristics.

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