

Subtilisin-like proteinase secreted by the *Bacillus pumilus* KMM 62 strain at different growth stages

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Abstract

Proteinase secreted in the environment by bacilli on different growth stages was isolated by ion chromatography from the culture medium of *Bacillus pumilus* KMM 62. According to the hydrolysis character of specific chromogenic substrates and inhibition type, the enzyme belongs to subtilisin-like serine proteinases. The isolated proteinase with the molecular mass of 30 kDa displays maximum activity on hydrolysis of the peptide substrate Z-Ala-Ala-Leu-pNA at pH 8.0 - 8.5 and temperature 30°C. The protein is stable in the range of pH 7.5 - 10.0. It was shown that subtilisin-like serine proteinase from *B. pumilus* KMM 62 possessed thrombolytic activity. © Pleiades Publishing, Ltd., 2012.

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Keywords

Bacillus pumilus, Isolation, Properties, Subtilisin-like proteinase, Thrombolytic activity