

International Journal of Advanced Research in Biology, Ecology, Science and Technology (IJARBEST) Vol. 2, Special Issue 8, February 2016 in association with KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, VIRUDHUNAGAR DEPARTMENT OF BIOTECHNOLOGY ORGANIZES DBT. NEW DELHI SPONSORED NATIONAL LEVEL CONFERENCE ON CONTEMPORARY TRENDS IN

DBT, NEW DELHI SPONSORED NATIONAL LEVEL CONFERENCE ON CONTEMPORARY TRENDS IN BIOENERGY AND GREEN TECHNOLOGY: CHALLENGES AND OPPORTUNITIES [ORA-2016] (25-26TH FEBRUARY 2016)

Production Of Nattokinase From Bacillus Subtilis And Purification By Liquid-Liquid Extraction And Optimization Of Process Parameters

K.PARANTHAMAN¹, M.SIVARANJANI² Bharathidasan Institute of technology, Tiruchirappalli – 620 024 hi2paranthaman@gmail.com; 8525837933

Abstract

Nattokinase (NK) is one such thrombolytic enzyme. Nattokinase is an enzyme with strong fibrinolytic activity that can be used for preventing thrombolytic diseases. It is a serine protease class of enzyme. Nattokinase finds its application in medical industry widely. It provides health benefits like cure of Diabetes, Muscle spasms, poor healing, chronic inflammation, help improve blood clotting mechanism, improve blood circulation, blood viscosity. In the present study, fermented soya bean powder is used as substrate for nattokinase production and the optimized parameters like incubation time, inoculum volume, inoculum age and pH that effect the production are optimized and the crude enzyme obtained was purified by using liquid-liquid extraction technique.

Key words: Nattokinase, fibrinolytic activity, thrombolytic diseases, blood clot, soya bean powder, liquid-liquid extraction.

