2-D Anaysis of pH Shock Effects in *Streptomyces coelicolor* A3(2)

Myung Hee Moon, Yoon Jung Kim, Yong Keun Chang
Dept. of Chemical and Biomolecular Eng., KAIST, Daejeon 305-701
TEL: +82-42-869-3927, ychang@kaist.ac.kr

Abstract

A phenomenon of spontaneous pH drop and recovery was observed in the culture of *S. coelicolor* A3(2) before the initiation of actinorhodin production. It was hypothesized that the pH drop and recovery could have triggered the production of actinorhodin. To investigate the pH effects on actinorhodin production, *S. coelicolor* cultures were grown on SMMS solid media at 28℃ under three different pH control conditions: without TES buffer (positive control), with TES buffer (negative control), and with an artificial acidic pH shock. Intracellular proteins from each culture were extracted and separated by two-dimensional electrophoresis. Approximately 400 protein spots were detected and quantified by using a computer-assisted image analysis package (Phoretix 2D expression).

References

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