

Investigation of submerged culture conditions of *Cordyceps militaris* for enhancement of cordycepin production

이수권, 이자현, 최한석, 김동섭, 이주훈, 박철환¹, 김승욱[†]
고려대학교; ¹광운대학교
(kimsw@korea.ac.kr[†])

Cordycepin is the main functional component in *Cordyceps militaris* and it has been received much attention for potential application in bio-industrial field. Recently, *Cordyceps* is artificially cultivated on solid media for fruiting body development. However, it has several disadvantages on cordycepin production such as long term cultivation time (about 2 ~ 3 month), low productivity and requirement of multi-step extraction and purification, etc.

In this study, the conditions of submerged mycelial culture of *Cordyceps* were investigated for short term production of cordycepin. Two strains (*Cordyceps militaris* KCTC 6064 and KCTC 6862) were cultured in a liquid minimal medium (pH 5 - 7) and the cultivation profiling was performed at 25 - 37°C temperature for 5 days. As a result, *Cordyceps militaris* KCTC 6862 was shown about 2.5-fold enhanced cordycepin production compared with KCTC 6064.