

E321 Characterization of Endoglucanases(F-II-IV) Purified from *Trichoderma* sp. C-4.

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One of the endoglucanases(F-II-IV) was purified from culture filtrates of *Trichoderma* sp. C-4 through the two step procedures including chromatography on Sephacryl S-200 and Sephacryl S-100. The molecular weight of the enzyme was determined to be about 26,000 by SDS-PAGE, and the isoelectric point as 8.0 by analytical isoelectric focusing. The temperature optimum of the enzyme was 50 °C and the pH optimum was 5.0. There was no loss of activity when the enzyme was preincubated at 50 °C for 24 hours. Km value for CMC was determined as 0.174 %, and the specific activity was 350 U/mg. The intrinsic protein sequence was analysed.

E322 Catalase Profiles of The Genus *Deinococcus*

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The Genus *Deinococcus* is a strictly aerobic bacteria and highly resistant to UV and ionizing radiation. So far, five mesophilic species of *Deinococcus* are known, four of gram-positive coccus; *Deinococcus radiophilus*, *D. radiodurance*, *D. proteolyticus*, and *D. radiopugnans* and one gram-negative rod; *Deinococcus grandis*. Because of an indispensable role of catalase in scavenging the reactive oxygen radicals with relation to their radioresistance, Deinococcal catalase activity of each species was assayed and their occurrence was investigated by polyacrylamide gel electrophoresis (PAGE). Total catalase activity was varied among the species grown aerobically on TYGM medium. Multiple forms of catalase with different molecular weights were observed in four species of *Deinococcus*, while a single catalase in *D. radiopugnans*, suggesting an unique electrophoretic profile of catalases for each species. Some Deinococcal catalases also exert peroxidase activity. Since Deinococcal spp. are less-distinct to each other in their colony morphology, biochemical properties, the catalase profiles on PAGE would be more valuable in identifying the species of *Deinococcus*.