

## **Carbohydrate-degrading enzymes with high potential for industrial applications from Thai-isolated fungi**

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### Abstract

Fungi are well-known decomposers of organic matters in nature and producers of many enzymes important for biotechnology applications. At present, BIOTEC Culture Collection (BCC) holds more than 12,000 fungal isolates, mainly collected in Thailand and is considered to be one of the world's biggest fungal collection. In the first phase, over 766 fungi from BCC were screened for cellulases, xylanases and starch degrading enzymes which optimally work at high temperature and extreme pH. Several enzymes with potent industrial applications were purified and characterised. The encoding genes were then identified and recombinant expression systems developed. Data from the screening have been collected in our "enzyme catalogue" which provides useful information for research purposes and industrial uses.