

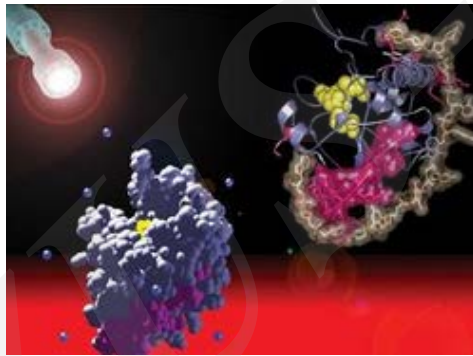
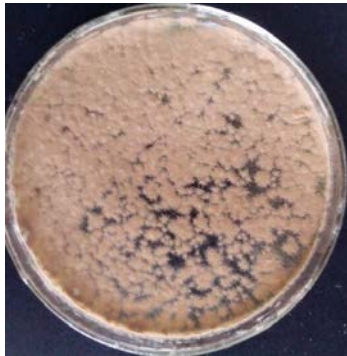
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Characterization of β -glucosidase from *Aspergillus terreus* and its application in the hydrolysis of soybean isoflavones

Key words: β -glucosidase, *Aspergillus terreus*, Characterization, Hydrolysis, Soybean isoflavones

Research Summary

This research mainly focused on the purification and characterization of *Aspergillus terreus* β -glucosidase (At-Bgl), and its application in the hydrolysis of soybean isoflavones.



The main results were summarized as follows:

- At-Bgl was a member of glycosyl hydrolase family 3 (GH3)
- At-Bgl showed maximal activity at pH 5.0 and 65° C
- Hydrolysis rate of At-Bgl for daidzin, genistin and glycitin were 95.8%, 86.7% and 72.1%, respectively.

Innovation points

- **At-Bgl** showed multiple industrial desired properties, including thermostability, wide pH stability, and high tolerance to pepsin and trypsin.
- **This is the first report** of an *A. terreus* β -glucosidase hydrolyzing soybean isoflavones and it showed second highest productivity for daidzein and genistein among the literature reports.

