

Isolation and characterization of biosurfactant-producing yeasts.

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Screening for biosurfactant-producing yeasts was carried out from water and plant samples collected from various parts of Thailand. The first screening was performed for the ability to produce the white precipitation around the colony on agar plate containing olive oil and CaCl_2 . The lipase-producing yeasts were then screened for the emulsifying activity in liquid culture using oil selective medium. Of 200 yeast strains isolated, about 50 strains could produce high amount of

lipases. Among these, 30 strains were found to produce biosurfactant.

All biosurfactant-producing yeast isolates could grow well at 42°C. Of these, 5 isolates tolerated at 45°C and capable of producing a surfactant activity. After solvent extraction, silica gel column chromatography and TLC analysis, sophorolipid-type biosurfactants were detected. The structure and properties of the biosurfactants are under investigation.

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