

Plan

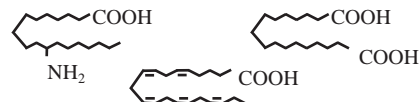
Sampling of wood-rotting fungi



- Lipid analysis
- Genetic engineering
- Metabolic engineering, etc.



Microbial production of functional lipids



Content:

Ligninolytic and cellulolytic enzymes from wood-rotting fungi have been actively studied as the key tools for degradation and saccharification of the plant biomass. Most microorganisms including yeasts produce various compounds through fermentation by using saccharified biomass. Therefore, we try to construct the consistent process that includes all of phases, degradation, saccharification and fermentation.

Functional lipids such as polyunsaturated fatty acids, hydroxy fatty acids, and dicarboxylic acids are used for food, medicine, and raw materials of chemical compounds. We are trying to isolate the fungus which produce functional lipids by screening of valuable wood-rotting fungi, and to construct the consistent process of biomass-fermentative production using the fungus.

Keywords : microbial conversion, functional lipid, breeding

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