

## Biotransformation for the production of sotolon as a natural flavor enhancer

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Sotolon is a natural flavor enhancer which is contained in the seed of a kind of herbal plant, fenugreek. Biotransformation process using microorganisms was examined to improve the bioconversion rate for the production of sotolon from the raw material. First, the extraction condition was optimized with regard to solvent type and pretreatment conditions. Dichloromethan was selected as a suitable solvent for the extraction of sotolon and sotolon-related compounds. Second, various microorganisms such as lactic acid-producing bacteria, yeast and fungi were tested for the biotransformation. Among the tested microbes, *Agaricus blazei* showed the highest conversion rate. The effects of additives including amino acids, salts, organic acids on bioconversion were investigated. Solution was added by isoleucine,  $\alpha$ -ketoglutaric acid, ascorbate, FeSO<sub>4</sub> and incubated by culture broth containing mycelium of *Agaricus blazei*, the sotolon content increased up to about 77 times that of the raw material.

### References

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