

## Synthesis and Properties of Extracellular Inulinase of *Kluyveromyces marxianus* Strains NRRL 2415 and ATCC 8601

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**P**RODUCTION of extracellular inulinase (Fructan-Fructanohydrolase E.C. 3.2.1.7) during growth of seven yeast strains was studied. Strains of *Kluyveromyces marxianus* NRRL 2415 and ATCC 8601 synthesized extracellular inulinase in sufficient amounts to allow further study of enzyme properties. Maximum inulinase production by strain 8601 was achieved when cells reached stationary phase. On the other hand, maximum inulinase production by strain 2415 was noticed when the culture reached late decline phase (97% death). The optimum pH for enzyme activity was 5.0 for both strains. Inulinase from the two sources exhibited different optimum temperatures of activity, 65° and 55° for strains 8601 and 2415, respectively. Enzyme from strain 8601 showed better thermostability and the apparent  $K_m$  values for both enzymes were similar and found to be 20  $\mu$  mole of Dahlia inulin (M.W.5000).

**Key words:** Inulin, *K. marxianus*, Inulinase, Fructan-Fructanohydrolase, Fructose