

P32

**Effect of agro-industrial byproduct as nitrogen source on
production of heteropolysaccharide-7
by *Beijerinckia indica***

Hyun Sook Kim¹, Hyuck Jin¹, Nam Kyu Lee¹, Dae Young Jung¹,
Dai Il Jung², Myung Kyo Shin³, Kyu Sik Shin⁴,
and Jin Woo Lee^{1*}

¹Division of Biotechnology, Faculty of Natural Resources and Life Science,
²Department of Chemistry, College of Natural Science, Dong-A University, Pusan,
604-714, Korea, ³Textile and Cleaner Production Center, Korean Institute of
Industrial Technology, Chonan 330-820, Korea, and ⁴Research Center of
Biotechnology & Bioengineering, KBP Co., LTD., Shihung, Kyung-gi 429-450, Korea
*Corresponding author(Fax: 82-51-200-7593; E-mail; jwlee@mail.donga.ac.kr)

Heteropolysaccharide-7 (PS-7) was produced by *Beijerinckia indica* HS-2001 under aerobic condition. The effect as the nitrogen source on cell growth and the production of PS-7 was investigated. The maximal cell growth and production of PS-7 were 1.48 g/l and 5.7 g/l, respectively, when the concentration of ammonium nitrate was 0.6g/l. The effect of agro-industrial byproduct (AIB) from the soybean sauce production as the nitrogen source on cell growth and the production of PS-7 was also investigated. The concentration of bacto peptone and the AIB was optimized for the production of PS-7. The production of PS-7 with 0.5 g/l bacto peptone was 6.52 g/l whereas that with 1.0 g/l AIB was 6.86 g/l. The AIB was found to be good and economic substitute to bacto peptone for the production of PS-7 in the study.