P22

Optimization of production of gellan by *Pseudomonas elodea* NK-2000

Nam-Kyu Lee, Hyung-Pil Seo, Young-Su Cho, Chung-Han Chung, Dong-Soo Lee[1] and Jin-Woo Lee*

Division of Biotechnology, Faculty of Natural Resources and Life Science, Dong-A University, Pusan 604-714, Korea, [1]Research Center of Biotechnology & Bioengineering, KBP Co., LTD., Shihung, Kyunggi 429-450, Korea
*Corresponding author (Fax: +082-51-200-7593, E-mail: jwlee@mail.donga.ac.kr)

Some physiological effects on the production of gellan (gellan gum) by *Pseudomonas elodea* NK-2000 was investigated. Salt solution included various kinds of salts with different concentrations such as manganese chloride, ferric sulfate, boric acid, cupric chloride was found to be essential for the production of gellan and its optimal concentration was 0.1% (w/v). The effect of aeration on cell growth and the production of gellan gum with 7L fermentor was investigated. Aeration rate also affected cell growth and the production of gellan. Maximal cell growth and production of gellan from 2% (w/v) glucose as the carbon source were 3.35 g/L and 3.80 g/L, respectively, when the aeration rate was 1.0vvm.