

## EFFECT OF GLUCOSE ON GROWTH RATE FOR THE CULTIVATION OF SOME MICROORGANISMS

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The aim of the study is to determine the differences of the growth rate of some microorganisms –*Escherichia coli*, *Saccharomyces cerevisiae*, *Lactobacillus plantarum*, *Bacillus thuringiensis* subsp. Kurstaki- in the presence of glucose as a carbon source. 20 g/L glucose is added into medium for *S. cerevisiae* to YPD Broth, for *E. coli* to LB Miller Broth, for *L. plantarum* to MRS Broth and for *B. thuringiensis* subsp. Kurstaki to Nutrient Broth. Microorganisms are inoculated to prepared medium and they were incubated at suitable temperatures along 24 hours. Absorbance values are read at 620 nm from spectrophotometer and curve of microbial growing is drawn. For *S. cerevisiae* from YPD Broth medium: at 2. hour -0.0015; at 14. hour 0.1335; at 18. hour 0.289; at 22. hour 2.095 as, for *E. coli* from LB Miller Broth at 2. hour 0.563; at 8. hour 1.4725; at 12. hour 1.7825; at 22. hour 1.489 as, for *L. plantarum* from MRS Broth at 2. hour 0.069; at 6. hour 0.542; at 18. hour 8.610; at 22. hour 7.007 as, for *B. thuringiensis* subsp. Kurstaki from Nutrient Broth at 2. hour 0.0265; at 8. hour 0.41; at 18. hour 0.588; at 24. hours 0.629. Growing of microorganisms is considered to obtained absorbance values against time in drawn graphics. Addition glucose to medium instead of saccharose effects positively growing of all microorganisms that used in this study and it shorten lag phase which is one of microorganisms growing periods.

Keywords: Glucose, growth rate, microorganisms

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