

ABSTRACT

Maria Mahdalena Devin Prasasti, NIM : 1534048, 2019. The different numbers of *Escherichia coli* colonies incubated at 35°C and 37°C. Bachelor Thesis. Medical Analysis Study Program. Faculty of Medical Science, Universitas Katolik Musi Charitas Palembang.

Background: *Escherichia coli* is a commensal bacterium or normal flora in the peritoneum or lower intestine. Laboratory test is carried out for calculating the colony numbers by incubating the pure colony of *Escherichia coli* under the incubation temperature of 35°C and 37°C with plate count agar media. This present research aims to determine the differences of colony number of *Escherichia coli* which is incubated at 35°C and 37°C using Plate Count Agar as the culture media.

Method: The research is analytical observation research with cross-sectional design. The research sample is *Escherichia coli* where the grown media is incubated at Plate count agar media and incubated at 35°C and 37°C. The experiment in each temperature is repeated for 16 times to prove the data is repeatable. After 24 hours, the colony numbers are calculated.

Result: The average numbers of colonies of *Escherichia coli* grown on Plate Count Agar Media at the incubation temperatures of 35°C and 37°C are 24 CFU/mL and 26 CFU/mL, respectively, with the significant value of 0.242 which is higher than 0.05 (p-value>0.05). The statistical analysis proved that there is no difference in the colonies number incubated at 35°C and 37°C on Plate Count Agar Media.

Conclusion: The research proves that there is no different in the colonies number incubated at 35°C and 37°C on Plate Count Agar Media.

Keywords: *Escherichia coli*, incubation temperature, *Plate Count Agar*