

ABSTRACT

Typhoid fever is an intestinal infectious disease caused by *Salmonella typhi*. Various types of plants in Indonesia have the potential to be used as traditional medicine. *Allium cepa* L. commonly known as shallot, is one of the traditional plants that can be used as a spice and traditional medicine. Based on the previous studies, the skin of *Allium cepa* L. contains active compounds of flavonoids, saponins and tannins which can inhibit bacterial growth. The aim of this study was to determine the inhibitory effect of *Allium cepa* L. skin ethanol extract against *Salmonella typhi* in vitro.

This research is an experimental laboratory using maceration extraction method with various extract concentration of 14.000 ppm, 28.125 ppm, 56.250 ppm, 112.500 ppm, 225.000 ppm and sterile aquades as the negative control. Antimicrobial activity test is carried out by the cylinder diffusion method with 5 times replication.

Based on the results of the Simple Linear Regression Test the significance value obtained was $0.035 < 0.05$. This value can be interpreted that the ethanol extract of the *Allium cepa* L. skin contributes to the inhibition of *Salmonella typhi*. The best growth inhibitory concentration of *Salmonella typhi* bacteria is 225.000 ppm, with an average inhibition zone diameter of 10.38 mm. The lowest concentration that can still inhibit the growth of *Salmonella typhi* is 14.000 ppm with an average inhibition zone diameter of 6.34 mm. The conclusion of the study is that the ethanol extract *Allium cepa* L. skin has the inhibitory effect on the growth of *Salmonella typhi*.

Key words: *ethanol extract of shallot skin (Allium cepa L.), antimicrobial inhibition, Salmonella typhi, cylinder cup diffusion, in vitro.*