

V. CONCLUSSION AND RECOMMENDATION

5.1 Conclusions

Based on the results of research that has been done, it can be concluded:

1. There are 7 isolates obtained from Cupak and Batu Bajanjang Hot Springs, Solok Regency that produced antibiotic. The isolates that produced highest antibiotic activity is TUA 103 at sixth hours of media production with inhibition zone 8.4 mm against *S.aureus* and isolate TUA 109 at third hours of media production with inhibition zone 6.56 mm against *E.coli*.

2. Characteristic partial from 7 isolates of Thermophilic Bacteria produce antibiotic are 5 isolate bacil Gram negative, 1 isolate basil Gram positive, 1 isolate diplobacil Gram positive, 1 isolate have endospore, 7 isolate positive catalase and 7 isolate have motility.

5.2 Recommendations

Further research is needed to optimize the potential isolates and molecular identify of thermophilic bacteria producing antibiotics, also determination of the compound that potential produce antibiotic from thermophilic bacteria isolate in Cupak and Batu Bajanjang Hot Springs.