



Fig. 3. (a) Antibacterial activity of n-hexane extract, (b) ethyl acetate extract and (c) methanolic extract.

Based on Fig. 3, the inhibition zone is formed at the lowest concentration of 5000 ppm to the highest concentration of 20,000 ppm for ethyl acetate and methanol extract. The concentration used is a factor that also influences the size of the inhibition zone that forms around the paper disc that has been filled with extract. The wider diameter of the inhibition zone formed proves the strength of the bioactive compound in inhibiting bacterial growth [11].

V. CONCLUSION

The result of the phytochemical screening test showed that *n-hexane*, ethyl acetate, and methanol extract of the leaf of *T. merguensis* had positive results in the flavonoids and terpenoid groups. GC-MS analysis of ethyl acetate as active extract presence of caryophyllene, hexadecanoic acid, α -acarenol, 9-octadecanoic acid, ethyl iso-allocholate, seline-3,7(11)-diene. Antibacterial test based on diameter measurements inhibition zone indicates ethyl acetate extract had antibacterial activity against *S. aureus* ATCC 25923 has the clear zone diameter of 9.7 mm, in the resistant to moderate category.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTION

Taufik Hidayat: Conducted the research, validation, formal analysis, investigation, and writing the original draft.

Respati Tri Swasono: Validation, formal analysis, writing-review and editing.

Winarto Haryadi: Conceptualization, validation, formal analysis, writing-review, and editing.

Boima Situmeang: conducted the research especially in antibacterial activity test and investigation the result.

All authors had approved the final version.

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