DETERMINATION OF ANTI-QUORUM SENSING ACTIVITIES OF *Voacanga globosa* Merr. *(*BAYAG-USA) AND *Ficus odorata* Merr. (PAKILING) AGAINST *Staphylococcus aureus* BIOTECH 1582

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ABSTRACT

Quorum sensing is a mechanism that is essential for the virulence of bacteria. Recent researches led to the discovery of the capability of phytochemicals to interfere with quorum sensing. Hence, in this study, the ethanolic leaf extract of *Voacanga globosa Merr.* and *Ficus odorata Merr.* were subjected to anti-quorum sensing tests. Each extract was first examined under the standardized test of AQS using *Chromobacterium violaceum*. There was no clear zone around the disc with the respective plant extract. Hence, there is no inhibition of violacein and the quorum sensing of *C.violaceum* was not intefered. Even with this results, *V. globosa.* and *F. odorata* were still qualified for further AQS test, and were then tested under coagulase test and DNase test of *Staphylococcus aureus*. There was formation of clot in the corresponding tube of each plant extract in the coagulase test, hence the production of coagulase was not inhibited. Also, there was clear zone in the plate of each plants DNase test thereby, the DNase production was not inhibited. The incapability to interfere with the production of coagulase and DNase indicates that the leaf extract of *V. globosa.* and *F. odorata* do not possess AQS activities on *S. aureus*.

Key words: Voacanga globosa Merr., Ficus odorata Merr., Quorum sensing, Staphylococcus aureus, Chromobacterium violaceum

TABLE OF CONTENTS

LIST OF TABLE

LIST OF FIGURES

LIST OF PLATES