ABSTRACT

Anti-quorum sensing (AQS) is the process of preventing virulence expression in bacteria by disrupting bacterial communication. Identification of anti-quorum sensing from natural products as an alternative to antibiotics is currently an area of interest. And since crude extracts of many plant parts were shown to possess anti-quorum sensing activity using *Chromobacterium violaceum* as a model bacterium, this study made use of the leaves of *Angelica keiskei* (Ashitaba) and *Jasminum grandiflorum* (Jasmin) in ethanol solvent to determine its anti-quorum sensing activity against *Staphylococcus aureus*. The plant extracts, *A. keiskei* and *J. grandiflorum*, do not exhibit antibacterial activity, showing that they are qualified to undergo the proceeding tests. Both of the plant extracts that were tested for the disk diffusion assay against *Chromobacterium violaceum* were not able to inhibit violacein production. For the DNase test, *A. keiskei* and *J. grandiflorum* was not able to inhibit the production of DNase, which indicates the absence of AQS. Lastly, for the coagulase test, *A. keiskei* and *J. grandiflorum* exhibit a positive result that indicates the absence of AQS. The study revealed that both plants, *A. keiskei* and *J. grandiflorum*, do not have the presence of anti-quorum sensing activity.

Keywords: *Angelica keiskei, Jasminum grandiflorum*, Anti-quorum sensing, *Staphylococcus aureus*