

Antibacterial effect of *Gracilaria changii* and *Eucheama denticulatum* on molecular properties of *Staphylococcus aureus* genes *mecA*, *mecR1* and *mecI*

ABSTRACT

Gram-positive bacteria are more sensitive to antibiotics than gram-negative bacilli because of the lack of outer membrane which prevent easy access of the drug into the bacterial cells. However, there are many gram-positive organisms with natural, intrinsic resistance to antimicrobials. In addition, these bacteria are able to acquire resistance to frequently used drugs rapidly through selective pressure of the environment and also via the genetic evolution of bacteria. The resistance of those bacteria to antibacterial agents is mediated by antibiotic resistant genes. Therefore, the current study was designed to explore the effect of seaweed extracts on several antibiotic resistant genes in *Staphylococcus aureus* mec genes *mecA*, *mecR1* and *mecI* that regulate the expression of methicillin resistance was investigated by PCR.

Keyword: Methicillin resistanc staphylococcus aureus seaweed; Polymerase chain reaction; Gene; Malaysia