ANTIMICROBIAL EFFECT OF SCOMBROTOXIN EXTRACTED FROM *XIPHIAS GLADIUS* (SWORDFISH)

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ABSTRACT

Scombrotoxin from swordfish (*Xiphias gladius*) is a yellow liquid with viscosity value of 0.001 Pascal seconds (Pa s) manifests an unpleasant fishy odor which when ingested can cause allergic reactions to humans. Hence, the study focused on determining the antimicrobial potentials of the extract to *Staphylococcus aureus*, a gram positive bacterium and *Escherichia coli*, a gram negative bacterium using Kirby-Bauer method. The toxin was characterized and identified using ultraviolet visible spectrophotometer. To remove remaining bacteria on the extract, it was filtered using membrane filtration method. It was then subjected to *S. aureus* and *E. coli* to test its antimicrobial property. The result showed that extracted scombrotoxin displayed inhibitory action on both bacteria by the presence of zone of inhibitions. However, it is more effective on gram negative *E. coli* than gram positive *S. aureus*.

Based on the outcome of the experiment, it was concluded that scombrotoxin from *X. gladius* (swordfish) red meat was able to inhibit the growth of both *S. aureus* and *E. coli*. Yet, there is a need for a more thorough study to gain a more comprehensive result.

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