

SIRICHOM LUANGON: SODIUM CHANNEL BLOCKING SUBSTANCES  
PRODUCED BY BACTERIA ISOLATED FROM GREEN MUSSELS  
(Perna viridis Linn.) THESIS ADVISOR: ASSO. PROF. KANCHANA  
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In the screening of sodium channel blocking substance producing bacteria from the strains isolated from green mussels by using the tissue culture assay, Vibrio sp. No.11 was found to produce high quantity of these substances. Results from the analyses: thin layer chromatography, electrophoresis and high performance liquid chromatography of two analytical systems : tetrodotoxins analysis system and saxitoxins analysis system revealed that the selected bacterial strain could produce both tetrodotoxin and anhydrotetrodotoxin derivatives. The study of growth characteristics in relative to the production of sodium channel blocking substances both with and without shaking incubation showed that this strain could grow and produce these substances better in the shaking condition during declined phase of growth. From the HPLC analyses, it was found that the proportion profile of the two derivatives are varied during the 264 hours of incubation.

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