

Biotechnologies towards Sustainable Development in Malaysia

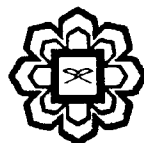
Zarina Zainuddin

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Zarina Zainuddin



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Chapter 28

Agglutinin and antibacterial activities in oyster, *Chama pacifica* plasma

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Introduction

The marine environment is huge of precious potential natural resources. Apart from food that is derived from the environment, wide varieties of bioactive substances are being isolated and characterized which are promising for pharmaceutical industries. The demand for effective and non-toxic antibacterial therapeutics has become even greater with the increased incidence of bacterial infections. Therefore, there is a vital interest in discovering new antimicrobial compounds from marine resources with fewer environmental and toxicological risks to which there is no resistance developed by the pathogens. Research on antibacterial property has been done previously on oyster (*Crassostrea virginica*), mussel (*Mytilus edulis* and *Geukensia demissa*), oyster (*Crassostrea belcheri*), and sea hare (*Dolabella auricularia*) (Anderson and Beaven, 2001; Iijima *et al.*, 2003; Nuchchanart, 2007). Antibacterial protein in bivalve may involved lectin that act by recognising the bacteria and subsequently inducing antibacterial activity (Mitta *et al.*, 2000). *Chama pacifica* is a wild species oyster found along Malaysian beach. A study was carried out to investigate the presence of agglutinin and antibacterial activities of *Chama pacifica* plasma.