IDENTIFICATION OF LISTERIA MONOCYTOGENES ON GREEN MUSSELS AND COCKLE SHELL

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Green mussel (Perna viridis) and cockle shell (Anadara granosa) are one of many sources of animal protein which is many cultivated in Indonesia because their price is relatively affordable. This study was conducted to identify the presence of Listeria monocytogenes in 27 samples of green mussels and 3 samples of cockle shells using real-time Polymerase Chain Reaction (real-time PCR) and biochemical methods. The target gene for amplification in real-time PCR was an hlyA gene because this gene was a determinant of virulence genes that produce listeriolysin O. Primers used in this study were forward primer DG69 (GTG CCG GGT AAA AGA CCA TA) and reverse primer DG74 (CGC CAC TGA GAT ACT AT) and fluorescence signals indicator using SYBR Green I. The results of analysis using real-time PCR were negative Listeria monocytogenes in all samples, while using biochemical methods there was one of 30 samples contaminated by Listeria welshimeri.

Keywords: hlyA gene, Listeria monocytogenes, Listeria spp., mussel, real-time PCR

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