

Comparison of Standard Culture Method and Real-time PCR for Detection of *Vibrio parahaemolyticus* in Seafood

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Introduction: *Vibrio parahaemolyticus* commonly found in seafood and cause gastroenteritis in human when consumed in raw or undercooked. Rapid and effective methods have been developed as the culture method requires up to 5-7 days. In this study, Real-time PCR was compared with culture method for detecting *V.parahaemolyticus* in seafood sample.

Material and methods: Five hundred gram of samples (oyster, raw salmon and mussel) were artificially contaminated with various level of *V.parahaemolyticus*, then divided into 20 samples (each 25g). Samples were incubated in 225ml of APW(Alkaline peptone water) at 35°C for 22-24hr and then streaked onto the TCBS agar at 35°C for 22-24h. Biochemical test for suspicious colony were performed with API20NE. Real-time PCR was performed using primers and probes targeting *tlh* gene sequence after enrichment in APW.

Results: In all samples, Real-time PCR detected an equivalent positives with culture method, and there was no significant statistical difference (real-time PCR: 52/100, culture method: 53/180, P=1.0000).

Conclusion: Real time PCR and culture method detected same number of positives, so Real time PCR can be alternative to culture method because of its rapid and labor saving detection.

References

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