

Title Development of Protocol for the Rapid Detection of Foodborne Virus in Oyster  
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### **Abstract**

Norwalk-like viruses (NLVs) are becoming major causes of foodborne illness in Korea. This study evaluated and modified major steps of virus particle separation and concentration from contaminated oyster. As a surrogate model for NLVs, we used Feline Calicivirus that belongs to the same Caliciviridae Family and is culturable in CRFK cell line. Instead of an ultracentrifugation method, an efficient method based on solvent extraction and PEG precipitation procedure was developed. Direct homogenization of 25 g sample of whole oyster in 175 mL PBS provided simplicity in the actual field of food industry. The acid adsorption step was eliminated without dropping the RT-PCR detection level. The general overnight PEG precipitation step was reduced to 3 h by putting the tube on ice and adjusting PEG concentration. The improved method developed in this study could be applied efficiently to detect NLVs from the oysters in commercial markets.