VALIDATION OF MOLECULAR DIAGNOSE BY PCR TO SALMONELLOSIS

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Salmonella sp. is a major cause of food-borne outbreaks and represents one of the major threats to public health worldwide. Success on salmonellosis management depends on the detection and diagnosis methods speed. The polymerase chain reaction (PCR) assay to Salmonella sp. detection has been considered due to swiftness, detection volume, and higher specificity and positive predictive values. In spite of the easiness of DNA amplification allowed by this technique, it is necessary the standardization of employed protocols or the adjustment of early procedures. The aim of the present study was to evaluate the specificity of primers presenting 457 base pairs to Salmonella sp. detection by PCR assay. Samples of chicken thighs and pork chops artificially contaminated with Salmonella sp. according to Golvêa (2009) were performed. The employed protocol (Moreira et al. 2002) to selective DNA isolation was efficient for the proposal, except by the use of SDS 1% buffer solution instead of CTAB 2%. The PCR assay was conducted allowing the specifications described to gene InvA detection to DNA amplification, in accordance with Maldonado (2008). After procedures, it was produced sharp DNA bands of 457 base pairs, which verified the presence of Salmonella sp. in the samples. Then, the method and reagents employed in this study were satisfactory, and the laboratory conditions were adjusted to each considered technique. With the limitations of this study, it was suggested that the protocol used in the present study may be employed to molecular diagnose the presence of Salmonella sp. in various habitual foods.