

عنوان مقاله:

PCR-RFLP of isolated Salmonella from poultry with Sau³AI and HhaI restriction endonucleases in Arak

محل انتشار:

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خلاصه مقاله:

Salmonella enterica is considered as one of the major pathogens in public health, worldwide. Diseases caused by Salmonella enterica serovars are especially prevalent in developing countries. It is one of the emerging pathogen in food-borne diseases, which is often found in contaminated chicken eggs. The aim of this study was to apply a PCR-RFLP method using Sau³AI and HhaI restriction endonucleases on the fliC gene to identify the serotypes of Salmonella isolates in avian living in Arak area in central Iran. Serotypes of 75 isolates included Salmonella enteritidis (45.33%), Salmonella infantis (44%), Salmonella typhimurium (5.33%), Salmonella bardo (2.67%) and Salmonella bacongo (2.67%). All the isolates showed fliC gene (1500 bp) by using specific primers. The results of PCR-RFLP with restriction enzymes HhaI and Sau³AI for gene fliC showed 4 and 5 patterns. It was observed that Sau³AI is able to discriminate all serotypes of Salmonella but HhaI could not distinguish Salmonella infantis and Salmonella typhimurium. The prevalent Salmonella isolated in this study belonged to serotype enteritidis and infantis. The combination of the data obtained with both restriction enzymes could differentiate the serovars completely. These results showed that fliC gene is a suitable target gene for discriminating among these Salmonella serotypes by PCR-RFLP.

کلمات کلیدی:

Salmonella, Avian, fliC gene, PCR-RFLP, HhaI, Sau³AI, Arak

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