## عنوان مقاله:

Molecular Detection of Arcobacter in Human Stool Samples Using Housekeeping Genes


## محل انتشار:

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## خلاصه مقاله:

Background: Arcobacter is one of the most common bacteria in humans and livestock, leading to gastroenteritis in humans as well as genital and enteric diseases in animals. This bacterium is known to be the main cause of diarrhea. In molecular studies, the ۱۶SrRNA gene was primarily used as the standard gene for the determination of the Arcobacter. The purpose of this study was to investigate the molecular detection of Arcobacter using glyA, atpA, and gyrA genes compared to۱۶SrRNA. Methods: In this study, ۶۱ samples of Arcobacter DNA isolated from fecal specimens of patients and healthy individuals in the sample bank were used. In order to detect Arcobacter, the intended primers for ۱۶SrRNA as well as glyA, atpA, and gyrA genes were used for polymerase chain reaction (PCR). The products obtained from the PCR were sequenced. Results: The results of the proliferation reactions indicated the accuracy of the intended primers and the associated molecular experiments. Our results showed that ۶۵.۵۷% of the cases were detected to be positive for Arcobacter among ۶۱ samples using the glyA gene. This percentage was higher compared to ۱۶SrRNA (۴۲.۶۲%), gyrA (۴۲.۶۲%), and atpA (۲۴.۵۹%). The analysis was statistically significant. Conclusions: Given the presence of repetitive sequences in the ۱۶SrRNA in most bacteria, the interpretation of the results is likely to be difficult for researchers. The results of this study showed more sensitivity and accurate diagnosis of Arcobacter using the glyA gene than other studied genes. In diagnostic studies of Arcobacter, the glyA gene is proposed as an alternative to the ۱۶SrRNA.


## کلمات کلیدی: