عنوان مقاله:

Detecting genetics of several isolated bacterial species from soils by hydrocarbons

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خلاصه مقاله:

The presence of hydrocarbons in the soil is considered one of the main problems of pollution. In our current study, eight samples isolated from soil saturated with hydrocarbons were taken from different areas of Baghdad, Iraq. In this study, ۵ isolates belonging to Pseudomonas aeruginosa by ۹۹%, ۴ isolates to Klebsiella pneumoniae by ۹۸%, and ۳ isolates to Enterobacter hormaechei by ۹۷% were diagnosed in different ways. A molecular examination was also conducted by ۱۶sRNA. We recorded P. aeruginosa, K. Pneumoniae and E. hormaechei as new local isolates in NCBI. In addition, a comparison was made between our isolates and the global isolates to determine the degree of convergence in the evolutionary line. The genes alkB and nahAc۷ were diagnosed in P. aeruginosa capable of degradation hydrocarbons. The aim of this study was to identify the bacterial species that resist the presence of hydrocarbons in the soil and also to diagnose some genes in the bacteria responsible for degradation of hydrocarbons in order to find the biological treatment methods.

کلمات کلیدی:

hydrocarbon, Pseudomonas aeruginosa, ۱۶sRNA, alkB gene, nahAc۷ gene