

## عنوان مقاله:

Biofilm formation with microtiter plate 96 and psIA detection of *P.aeruginosa* isolates from clinical samples in Iran

## محل انتشار:

مجله بین المللی تحقیقات پیشرفته زیست شناختی و زیست پزشکی، دوره 8، شماره 1 (سال: 1399)

تعداد صفحات اصل مقاله: 9

## نویسندگان:

.Mohammad Abootaleb - *Department of Biology, Qom Branch, Islamic Azad University, Qom, Iran*

Mohammad Reza Zolfaghari - *Department of Biology, Qom Branch, Islamic Azad University, Qom, Iran*

.Nazila Arbab Soleimani - *Department of Biology, Damghan Branch, Islamic Azad University, Semnan, Iran*

Nassim Ghorbanmehr - *Department of Biotechnology, Faculty of Biological Sciences, Alzahra University, Tehran, Iran*

## خلاصه مقاله:

Background: Microorganisms attach to various surfaces and they have manufactured biofilms by production polysaccharides like PSL in *P.aeruginosa*. synthesis of this kind of polysaccharide has done by PSL gene cluster. The aim of this study is consideration biofilm formation which is one of the major cause antibiotic resistance Methods: In this study, 100 *P. aeruginosa* were isolated with bacteriological and biochemical methods and psIA gene detection with PCR in all of the *P. aeruginosa* isolated from patients Then biofilm formation checked with microtiter plate method and it showed with SEM. Finally, expression of main attachment gene psIA in 6 strains could make moderate and strong biofilm were investigated by real-time PCR assay. Results: In this study, 100 *P. aeruginosa* were isolated that these strains showed High rates of MDR. The presence psIA gene in all of the pseudomonas isolated from patients was proven. Microtiter plate method showed 24 (24%) strains could make biofilm Among 100 strains that showed with SEM. The psIA expression in strains which making moderate and strong biofilms are more than other strains Conclusions: Hence, for bacterial biofilm treatment is recommended: Before antibiotics are prescribed, biofilm formation by bacteria should be investigated

## کلمات کلیدی:

(*P. aeruginosa*, microtiter plate, biofilm, Real time PCR, Scanning Electron Microscopy (SEM

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/959661>

