# Article information:

Generation of Greater Bacterial Biofilm Biomass using PCR-Plate Deep Well Microplate Devices
[https://www.readcube.com/library/4329239a-9222-40b7-8137-64a8d264860a:c515ba59-565a-4c28-8156-3567d03aee45](https://www.readcube.com/library/4329239a-9222-40b7-8137-64a8d264860a%3Ac515ba59-565a-4c28-8156-3567d03aee45)

# Article summary:

1. This article outlines a protocol to use self-assembled polypropylene 96-well deep well PCR-plate pegged-lid device to grow Escherichia coli BW25113 and Pseudomonas aeruginosa PAO1 biofilms.

2. The larger surface area of deep well devices increased overall biofilm formation by both species 2-4-fold.

3. Biofilm eradication assays with disinfectants such as sodium hypochlorite (bleach) or benzalkonium chloride (BZK) showed that both compounds could eliminate E. coli and P. aeruginosa biofilms from both devices but at different MBEC values.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

This article is generally reliable and trustworthy, as it provides detailed information on the protocol for using self-assembled polypropylene 96-well deep well PCR-plate pegged-lid device to grow Escherichia coli BW25113 and Pseudomonas aeruginosa PAO1 biofilms, as well as the results of the experiments conducted to test the efficacy of this method in comparison to standard polystyrene devices. The authors provide evidence for their claims, such as data from crystal violet biomass staining and MBEC determination assays, which demonstrate that the larger surface area of deep well devices increased overall biofilm formation by both species 2-4-fold, and that both disinfectants tested were able to eliminate E. coli and P. aeruginosa biofilms from both devices but at different MBEC values.

The article does not appear to be biased or one sided in its reporting, nor does it contain any promotional content or partiality towards any particular product or method mentioned in the article. It also does not appear to be missing any points of consideration or evidence for its claims, nor does it contain any unexplored counterarguments or missing evidence for its claims made. Furthermore, possible risks associated with using this method are noted in the article, such as potential contamination due to improper handling of materials during assembly of the device or incorrect sterilization techniques used prior to use of the device for culturing bacteria.

In conclusion, this article is generally reliable and trustworthy due to its detailed description of the protocol used for culturing bacterial biofilms on polypropylene devices, as well as its presentation of evidence supporting its claims regarding increased biomass accumulation on deep well pegs compared to standard polystyrene devices when using crystal violet biomass staining and MBEC determination assays.

# Topics for further research:

* Bacterial biofilm formation
* Disinfectant efficacy against biofilms
* Polypropylene device assembly
* Crystal violet biomass staining
* MBEC determination assays
* Sterilization techniques for culturing bacteria

# Report location:

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