

## Sequence-Based Identification of Bacteria Using MiroSeq ID System

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Molecular methods have shown great potential to detect and identify bacteria that are nonculturable. One of the methods is the MicroSeq ID Microbial Identification System which allows an easy identification and classification of unknown bacterial sequences by comparing them to a validated microbial library. The Microseq ID sequences library consist of bacterial libraries of 500bp 16S rDNA sequences. The present study aims to verify the commercially available Microseq ID System for detection of bacterial culture. DNA of bacteria from the bacterial culture collection were extracted and amplified as recommended in the protocols. All sequences analysis were performed on an ABI 3500 Genetic Anlayzer. A total of 10 bacterial strains from different bacterial species were subjected to 16S rDNA sequence analysis by the MicroSeq 500 assay. The MicroSeq 500 assay was able to distinguish between species then phenotypic identification for all the 10 bacterial strains tested. Our results indicated that MicroSeq ID system allowed a better curated database and thus allowed a better genus and species identification. The system will be able to help in identification of bacterial strains from unknown samples which will be extensively used in the laboratory for identification of unknown isolates from food and water samples.

## **Biography:**

Uma Priya was the Section Head of the Food Microbiology Laboratory with the Department of Chemistry Malaysia, a government agency under the Ministry of Science, Technology and Innovation Malaysia. She has more than 15 years of experience in food and water microbiology testing. She has extensive experience running an internationally accredited laboratory with an additional stint of 2 years in the DNA Forensic Laboratory and was responsible for human DNA testing for regulatory matters. Dr Uma holds a PhD in Plant Molecular Biotechnology from Newcastle University, United Kingdom. She obtained her Masters in Environmental Management and Bachelors in Microbiology from the National University of Malaysia (UKM). Dr. Uma is currently the Head of Procifiency Testing Section under the Chemical Metrologi Division of the department.

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