



Bacterial Profiling for Environmental Samples

Introduction

Do you know that only < 2% of microbes in the environment is culturable without optimization if you opt for conventional microbiology testing method? You might miss some of them!

The advent of Next-Generation Sequencing (NGS) technology provides a culture-free method that identifies and classifies both **cultured and uncultured** bacteria based on the DNA present in whole environmental samples, targeting a universal taxonomic marker present in all bacteria.



Complete bacterial profiling is applicable to:

- Drinking water quality assessment
- Wastewater treatment
- Monitoring of faecal contamination
- Biomonitoring of pollution
- Biomonitoring of corrosion
- Bioremediation
- Toxicity study

Methodology

Taxonomic classifications of bacteria are obtained through mapping of the sequences to a curated database. This method provides insights into the full microbiome, i.e., the complex structure of bacterial community in water or soil samples.

DNA Extraction

Library Preparation

Sequencing

Analysis

Sample type:

- Water sample: 2 L in sterile bottles
- Solid sample: 10 g in sterile bottle
- DNA sample: ≥200 ng

Please contact us to discuss your analysis requirement and we will assist you with the proposal.

ALS Malaysia is part of the ALS global laboratory group and is an ISO 17025 accredited laboratory equipped with state-of-the-art facilities.

