



AGRF's Diversity Profiling service is a method of identifying the relative proportion of organisms present in a mixed community.

To do this, AGRF will take your sample (either raw sample, or extracted gDNA) and PCR amplify a region of interest from your mixed community.

We will then pool and sequence the barcoded amplicon(s) on the MiSeq platform utilising Illumina's Paired End Chemistry.

AGRF has validated fusion primers that can directly amplify many of the popular regions including:

- 16S: 27F-519R
- 16S: 341F - 806R
- 18S: Euk1391F-EukBR
- ITS1 - ITS2



The process workflow

Sample Submission

The Diversity Profiling service has been designed to be simple and customisable.

For greater flexibility our service allows two points of entry, submissions of raw samples or genomic DNA. The 16S and ITS targets have no minimum sample submission.

Microbial Diversity Profiling with extraction

When you need to submit a raw sample.

Service includes:

- gDNA extraction
- PCR-amplification of your region (includes barcoding of PCR product)
- Sequencing on the Illumina MiSeq platform
- Bioinformatics analysis and reporting of taxonomic distribution



Data delivery

Once sequencing is complete, you will be provided with your sequences and an overview report.

This report includes an Operational Taxonomic Units (OTUs)* table for each sample, taxonomy summary files (at different levels from kingdom down to family) and taxonomy summary plots.

This includes .fastq outputs of the run for your individual samples and alpha/beta identification.

** (OTUs) are groups of sequences that are intended to correspond to taxonomic clades or monophyletic groups.*

Reliable and consistent quality

Providing quality genomic services is our top priority.

We operate to a unique set of quality standards: we are CPA, GLP/GCP accredited and we are also Agilent and Illumina CSPro certified.

Our services have been accredited to the ISO/IEC 17025:2005 standard by the National Association of Testing Authorities (NATA) so you can be sure to receive industry leading data quality and service, consistently.

Our funding partners

AGRF is a not-for-profit organisation supported by the Commonwealth Government infrastructure schemes administered through Bioplatforms Australia.

These schemes include NCRIS, EIF, Super Science Initiative CRIS and NCRIS 2.



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