

Microbiome Sequencing

Reminder:

- Kindly note that all samples will not be returned. Please ensure you have made sufficient backups of the samples in advance.
- We recommend using 2 mL tubes for sample delivery (15 mL tubes for large tissue). 50 mL tubes are not accepted.

Recommendations on tissue samples-Microbe

Species	NGS-based Genome	PB	ONT
Bacteria	1×10^7	$\geq 3.5 \times 10^{10}$	$\geq 3.5 \times 10^{10}$
Unicellular Fungus	$5 \times 10^6 - 1 \times 10^7$	$\geq 3.5 \times 10^{10}$	$\geq 3.5 \times 10^{10}$
Macro Fungus	≥ 4.0 g	≥ 10.0 g	≥ 10.0 g

Recommendations on environmental sample (For 3 extraction)

Type	Amplicon	NGS-Metagenome	ONT-Metagenome
Soil/Sludge	2 g	3 g	3-5 g
Intestinal contents-Animal	0.5-2 g	0.5-2 g	2-3 g
Intestinal contents-Insect	0.1-0.25 g	0.5-2 g	2-3 g
Plant surface	Enriched sediment 0.1-0.5 g	Enriched sediment 0.5-1 g	2-3 g
Fermentation broth	Enriched sediment 0.1-0.5 g	Enriched sediment 0.2-0.5g	
Feces (Large animals)	0.5-2 g	0.5-2 g	2-3 g
Feces (Mouse)	3-5 grains	3-5 grains	5-10 grains
Pulmonary alveolar lavage fluid (Mouse, etc.)	Filter paper	Filter paper/Sediment	
Vaginal swab	5-10 swabs	5-10 swabs	
Skin/ Genital swab/ Saliva/ Oral soft tissue/ Pharyngeal swab/ Rectal swab	5-10 swabs	5-10 swabs	
Surface microorganism	Filter paper or swab	5-10 swabs	
Waterbody/ Air/ Biofilm	Filter paper	3 filter paper	
Endophytes	1-2 g	2-3 g	
Dental plaque	0.5-1 g	0.5-1 g	

Nucleotides sample requirements

Type	Concentration and Purity					
	Conc. (ng/ μ L)	Amount (μ g)	Volume (μ L)	OD260/280	OD260/230	Nanodrop /Qubit
NGS-Amplicon	≥ 1	≥ 0.2	≥ 20			
PB-Amplicon	≥ 5	≥ 0.3	≥ 20			
NGS-Metagenome	≥ 1	≥ 0.03	≥ 20			
PB-Metagenome	≥ 50	10 μ g/cell	≥ 20	1.8-2.0	≥ 2.0	1.5-2.5
NGS-Metatranscriptome	≥ 50	≥ 1.0	≥ 20	1.8-2.0	1.0-2.5	RIN ≥ 6.5
NGS-Prokaryotic mRNA	≥ 50	≥ 1.0	≥ 20	1.8-2.0	1.0-2.5	RIN ≥ 6.5
NGS-Microbial Genome	≥ 1	≥ 0.06	≥ 20			
PB-Bacterial Genome	≥ 20	1 μ g DNA/1 Gb data Minimum on 1.2 μ g	≥ 20	1.7-2.2	≥ 1.0	0.8-2.5
PB-Fungal Genome	≥ 20	1 μ g DNA/1 Gb data Minimum on 2.0 μ g	≥ 20	1.7-2.2	≥ 1.6	0.8-2.5
ONT-All Microbial Services	≥ 40	≥ 2.0	≥ 20	1.7-2.2	1.0-3.0	0.8-2.5

Recommended that stored in TE buffer