

MICROBIOME WGS

For the complete genome characterization of human microbiome communities

MICROBIOME WGS

4bases **MICROBIOME WGS** (Whole Genome Sequencing) is a kit designed for the complete genome profiling of different human microbiome communities through a shotgun protocol for Next Generation Sequencing (NGS) technologies on Nanopore platforms.

TECHNOLOGY

MICROBIOME WGS kit contains all reagents needed to characterize the microbial genomes of human microbial communities, allowing for library multiplexing and NGS sequencing using Nanopore platforms (Table 1).

This kit can also be used for environmental screening and approaches (e.g., surface swabs, soil contamination, ...).

WORKFLOW

The **MICROBIOME WGS** kit is part of a shotgun-based, long reads-oriented family solution of 4bases molecular technologies. Its accuracy and specificity in detecting different taxa, coupled with its straightforward protocol (less than 2 hours hands-on-time), are the key to its reliability.

Thanks to [4bases collaboration with One Codex](#), the sequencing results are easily and efficiently accessible in minutes.

SOFTWARE ANALYSIS

The **4bases-One Codex** collaboration merges the reliability and efficiency of 4bases microbiome kits with the unique accuracy and sensitivity of One Codex to characterize microbial communities in clinical samples.

Thanks to the **integration of One Codex database and pipeline analyses with 4bases shotgun sequencing solutions**, clinical laboratories can perform routine microbiome analyses as well as short- and long-term monitoring in easy, straightforward and efficient solutions.

VALIDATION

The **MICROBIOME WGS** kit has been tested on DNA standards and clinical samples (Figure 1). The long reads peculiarity of this kit allows to obtain a robust sequencing thanks to the reliability of Nanopore sequencers.

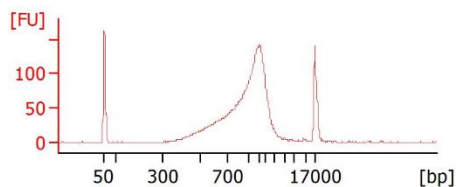


Figure 1. Agilent Bioanalyzer profile of a final **MICROBIOME WGS** library.

Table 1: Samples per **MICROBIOME WGS** kit sequencing run on Nanopore sequencers.

Flow Cell	Samples per Flow Cell (Coverage 100,000x)	Nanopore sequencer	Flow Cells per sequencer*
FLO-FLG114	2	Flongle	1
FLO-MIN114	16	MinION	1
		GridION	Up to 5
FLO-PRO114M	96	PromethION 2/P2 Solo	Up to 2
		PromethION 24	Up to 24
		PromethION 48	Up to 48

* Multiple Flow Cells can be used during the same run session, either with different libraries or with the same library to increase sequencing depth.

ORDERING INFORMATION **

	Product	REF
LIBRARY AMPLIFICATION REAGENTS	MICROBIOME WGS	RC3270-16 (16 test)
	MICROBIOME WGS	RC3270-96 (96 test)
MULTIPLEXING REAGENTS	UDI Primers Set A	7001 (96 test)
	UDI Primers Set B	7002 (96 test)
	UDI Primers Set C	7003 (96 test)
	UDI Primers Set D	7004 (96 test)
	UDI Primers Set 16	7005 (16 test)
NANOPORE ADAPTERS	NANO ADAPTER	M1050-6 (6 sequencing run)
		M1050-24 (24 sequencing run)

** The reagents required for sequencing on Nanopore platforms have to be purchased separately: contact 4bases for further information.

CONTACT US

For more detailed information regarding validated solutions for automatic library preparation, please contact us at info@4bases.it.

For further information on **MICROBIOME WGS** please contact us at support@4bases.it.



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