Microsynth

BacterialSeq -
High Quality *De Novo* Sequencing

Comprehensive and Informative
Genomic DNA is fully sequenced by long reads (ONT) with high consensus accuracy. You will receive the **fully reconstructed and annotated genome sequence** of your bacterial species.

Speedy and Cost-effective
Results are delivered within 3 to 7 working days after sample receipt. The complete sequence can now be unraveled at a fraction of the cost compared to previous sequencing technologies.

Easy Handling
All you need is to send as little as 1 µg of bacterial genomic DNA via **Microsynth's drop box system**, which **includes free and fast shipping**. Do you need to outsource your DNA isolation? Microsynth has you covered.

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Overview of BacterialSeq

Microsynth's new bacterial genome sequencing service is based on the latest long-read sequencing technology from Oxford Nanopore Technologies (ONT). It is designed for *de novo* whole genome sequencing and assembly of genomic DNA from a clonal population of bacteria (single species, genome sizes up to 12 Mb). The sequencing yields on average a 30x genome coverage.
Microsynth has developed a sophisticated bioinformatics pipeline to accurately reconstruct and thoroughly annotate microbial chromosomes.

Outstanding Features & Benefits

This new service is **fast, cost-effective, complete, and hypothesis-free**. Provide a clean, good quality DNA sample and receive **annotated contigs** of your bacterial genome, with a **wealth of supporting information** including complementary species identification methods, and quality metrics such as coverage analysis. Compared to Illumina sequencing, both costs and **turnaround times are significantly reduced.** Long sequencing reads **greatly enhance the accuracy of the assembly**, even in the presence of repetitive elements. **Useful add-on services are available for an additional fee:** nucleic acid preservation for ambient bacterial shipment, DNA isolation, Illumina-based assembly polishing, and reference-based variant calling.

ONT vs. Illumina Sequencing

Research Question or Application	ONT	Illumina
Fast and cost-effective *de novo* sequencing of an entire genome sequence	+++	+
Sequencing of GC-rich and repetitive regions without gaps	++	+
Verifying number of repeated regions	++	-
Direct sequencing of native DNA, minimally fragmented and without the need for PCR amplification	+++	-
Identification of structural variations	++	-
Nucleotide level accuracy	++	+++

Incredibly Straightforward

1. Just submit 1 µg of a high quality DNA preparation.
2. Put your samples in one of our sample drop boxes.
3. Sit back, your sequencing results will be delivered in 3 to 7 working days following sample receipt. If you choose DNA isolation service or polishing service in addition, another 5 days will be needed, for each.

Products

3272	BacterialSeq	3273	BacterialSeq - Polishing
3271	BacterialSeq - DNA Isolation	3274	BacterialSeq - Large Genome (7-12 Mb)
20050	Nucleic Acid Preservation Buffer (10 x 1 ml)	3276	BacterialSeq - Variant Analysis

Never Tried it Before? Get Your Exclusive Trial Set Today!
Write an email to your sales manager or info@microsynth.ch and ask for **trial set**.
How to Order?
Enter our webshop via www.microsynth.com
Click on "**ONT Sequencing**" in the green „Analysis Services" area
Click on "**BacterialSeq**" service and follow the further instructions
Need More Information?
Call us at +41 71 726 10 04 or
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