



## YeastSeq - Rapid Yeast Genome Sequencing

### Comprehensive and Accurate

Whole genome sequencing of clonal yeast strains using long-read technology (ONT). Receive a **fully reconstructed and annotated yeast genome** with high consensus accuracy.

### Optimized for Yeast Research Applications

Resolve repetitive regions, structural rearrangements and chromosome copy-number variations — ideal for engineered, production and laboratory yeast strains.

### Straightforward and Fast

Results within 5–10 working days after sample receipt. Submit 1 µg of high-quality genomic DNA via Microsynth's drop box system with free and fast shipping.

## Overview of YeastSeq

Microsynth's YeastSeq service is based on advanced long-read sequencing technology from Oxford Nanopore Technologies (ONT) and is specifically optimized for yeast genomes.

The service enables *de novo* whole genome sequencing and assembly

of genomic DNA from clonal yeast populations (single species, genome sizes up to 16 Mb). Sequencing yields an average coverage of approximately 30x, enabling robust genome reconstruction.

Microsynth has developed a dedicated

bioinformatics workflow to accurately assemble yeast chromosomes and perform comprehensive genome annotation. The resulting dataset includes assembled contigs, annotation files, coverage statistics, and quality control metrics.

## Outstanding Features & Benefits

This service is **fast, cost-effective, complete and hypothesis-free**. Provide high-quality DNA and receive annotated contigs of your yeast genome, including quality metrics such as coverage analysis.

Long sequencing reads greatly

**improve assembly continuity** and enable **reliable detection** of structural variations. Compared to short-read sequencing, **complex and repetitive genomic regions can be resolved more effectively**.

**Useful add-on services are available for an additional fee:** DNA isolation, nucleic acid preservation buffer, additional Illumina-based variant detection, and reference-based variant analysis.

## ONT vs. Illumina Sequencing

Research Question or Application	ONT	Illumina
Fast de novo sequencing of a complete yeast genome	+++	+
Assembly of repetitive and subtelomeric regions	+++	+
Detection of structural variations (SVs)	++	+
Chromosome copy-number analysis / aneuploidy	++	++
Resolution of complex genomic rearrangements	++	+
Single nucleotide 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 additional Illumina-based variant detection service in addition, another 5 days will be needed, for each.

## Products

3290	YeastSeq	3293	YeastSeq - Illumina Variant AddOn
3271	YeastSeq - DNA Isolation	3276	YeastSeq - Variant Analysis
20050	Nucleic Acid Preservation Buffer (10 x 1 ml)		

### How to Order?

- Enter our webshop via [www.microsynth.com](http://www.microsynth.com)
- Click on **"ONT Sequencing"** in the green „Analysis Services“ area
- Click on **"YeastSeq"** service and follow the further instructions

### Need More Information?

- Call us at +41 71 726 10 04 or
- E-mail us at [sanger.support@microsynth.ch](mailto:sanger.support@microsynth.ch)