

# Nanopore Sequencing

## Technology Principle

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- DNA/RNA passes through protein nanopore
- Changes in electrical current identify bases
- Real-time sequencing - no synthesis required

### Read Length

Ultra-long reads: up to 2 Mb

Average: 10-100 Kb

### Accuracy

Raw: ~95%

With consensus: >99%

## Key Features

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- Portable device (MinION USB sequencer)
- Real-time data analysis
- Direct RNA sequencing without reverse transcription
- Detect base modifications natively
- Rapid sequencing for outbreak response

