

Nanopore Sequencing

Nanopore sequencing is a single-molecule, long-read technology that reads DNA or RNA in real time by detecting electrical current changes as molecules pass through nanopores. It generates ultra-long reads without amplification or primers, enabling direct sequencing of native molecules, making it particularly effective at resolving complex genomic structures, high-GC regions, repetitive sequences, and structural variations.

Sample Submission Guidelines

Sample Type	Requirements	Special Recommendation
PCR Product	<ul style="list-style-type: none"> Qubit quantification ≥ 20 ng/μL, volume ≥ 15 μL Buffer: Nuclease-free water or elution buffer (without EDTA) 	Avoid gel extraction and UV irradiation
Plasmid Nucleic Acid	<ul style="list-style-type: none"> Purity: OD260/280 ≈ 1.8-2.0; OD260/230 ≈ 2.0-2.2 	Monoclonal plasmid
Bacterial Culture	<ul style="list-style-type: none"> Small volume: 500 μL High volume: ≥ 4 mL 	<ul style="list-style-type: none"> Escherichia coli only; With the antibiotic type specified; High copy number is recommended

Choose the Most Suitable Sequencing Method

Superiority	Sanger	Nanopore
Low Cost	Single reaction for sequences ≤ 1000 bp, requiring multiple primers and repeated amplification.	Complete sequencing at a lower cost with high accuracy
High Accuracy	Gold Standard	Single molecule accuracy $>99.9\%$ (Q30)
Detect Mixed Templates	Overlap of peaks	✓
Compatible with Complex Sequences	High GC content, repeats, and inverted terminal repeats (ITRs) require adjustments and carry a certain failure rate	Sequencing the bases of a complex region in a single run
Low-Frequency Mutation	✗	✓
Recommended Applications	<ul style="list-style-type: none"> PCR product validation Plasmid verification Single nucleotide mutation analysis Small constructs 	<ul style="list-style-type: none"> Whole plasmid sequencing Long PCR products or amplicons Structural variant detection High-GC or repetitive regions

SEQUENCING TECHNOLOGY SERVICES

Contact US

Bioscience

Shanghai BioScience Co., Ltd.

global@bioscience.com.cn

www.bioscience.com.cn

BIOSUNE

Bioscience

BIOSUNE

Why Choose Biosune?

High-Precision DNA Sequencing

- Accurate analysis of complex sequences, including high GC content and hairpin structures.
- Full plasmid sequencing available on request.
- Strict quality control, compliant with ISO 9001 and ISO 13485 standards.

Fast and Efficient Delivery

- Eight localized labs in China for rapid sample processing.
- Nearly 30 ABI 3730xl & nanopore units enabling 30,000 daily sequencing reactions.
- Fastest delivery in 10 hours; expedited services available for urgent needs.

Comprehensive One-Stop Service

- Supports various sample types: PCR products, plasmids, bacterial suspensions, and plate cultures.
- Dual sequencing platforms with customizable protocols.
- Free access to 370+ universal primers, plus complimentary primer design and sequence assembly.

Reliable Technical and After-Sales Support

- Night and weekend pickup to ensure timely sequencing.
- Free retesting for abnormal Sanger sequencing results.
- Multi-channel support (online & offline) with quick response times.

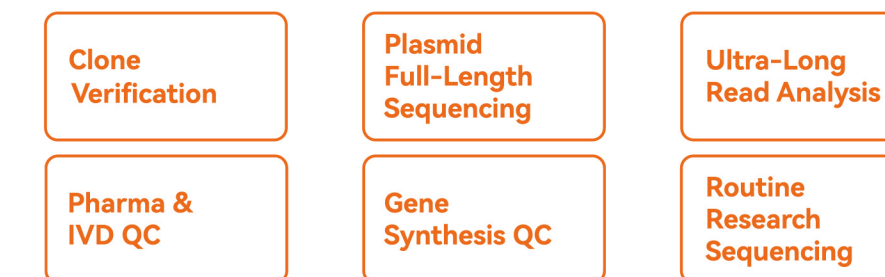
Experienced and Stable Team

- Professional team with over 6 years of expertise.
- Core members with 10+ years of experience, ensuring consistent, high-quality service.

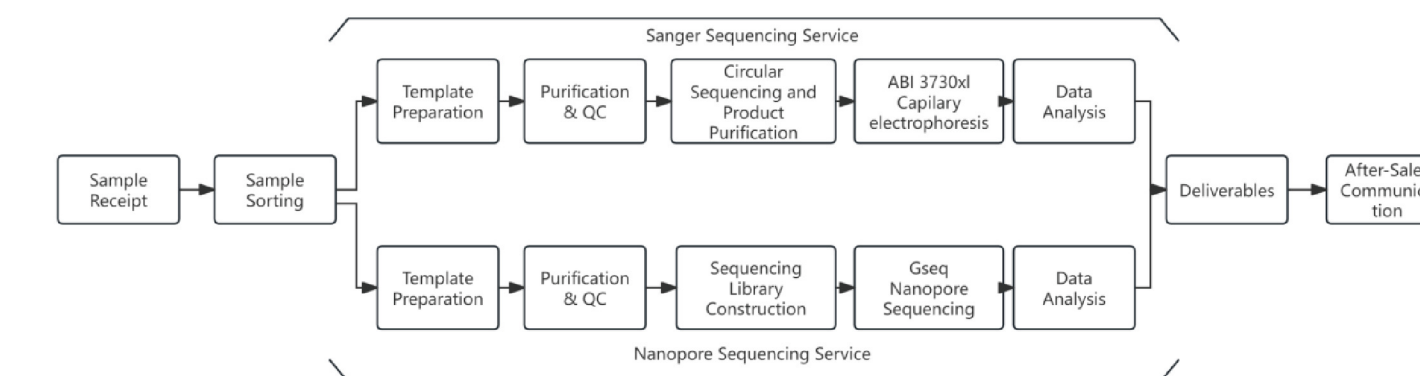


Application Area

Our Sanger sequencing and Nanopore long-read sequencing solutions cover a wide range of needs, from routine validation to complex analysis



Service Process



Sanger Sequencing

Sample type	Concentration	Volume	Note
Purified PCR Product	≥50ng/μl	≥30μl	Dissolve strictly in RNase-free double-distilled water; do not dissolve in TE buffer.
Unpurified PCR Product	≥50ng/μl	≥10μl	
Plasmid	≥100ng/μl	≥10μl	Dissolve strictly in RNase-free double-distilled water; do not dissolve in TE buffer.
Liquid Culture	<ul style="list-style-type: none"> • 4 mL fresh overnight bacterial culture (minimum 200 μL). If <4 mL, transfer to continue growth before plasmid extraction. • High copy plasmids in common cloning strains work best. • Provide information on vector, insert size, and antibiotic resistance type. 		
Circled Colony on Agar Plate	Submit agar plates wrapped in parafilm		

Notes: Ensure samples are labeled clearly. Handle all bacterial cultures under appropriate biosafety conditions. Avoid repeated freeze-thaw cycles to maintain sample quality.

ABOUT US

BioSune Biotechnology (Shanghai) Co., Ltd. ("BioSune") was established in 2012 as a wholly-owned subsidiary of Shanghai BioScience Co., Ltd. The company specializes in sequencing-based research services and has served over 30,000 clients to date. Headquartered in Shanghai, BioSune operates sequencing laboratories in Hangzhou, Fuzhou, Xiamen, Guangzhou, Changsha, Sanya, Shenyang, and Chengdu, and maintains a nationwide sales and service network.

With a founding team of over 30 years' experience in Sanger sequencing and oligo synthesis, BioSune brings deep technical expertise and extensive industry experience. As a technology-driven company, BioSune has been recognized as a National High-Tech Enterprise, a Shanghai Specialized and Innovative SME, and a Shanghai Innovative SME, and holds both ISO9001 and ISO13485 certifications, along with multiple patents. BioSune continually advances innovation and service quality in the industry.

BioSune is committed to providing reliable, professional molecular biology services and products to researchers in life sciences and medicine.

