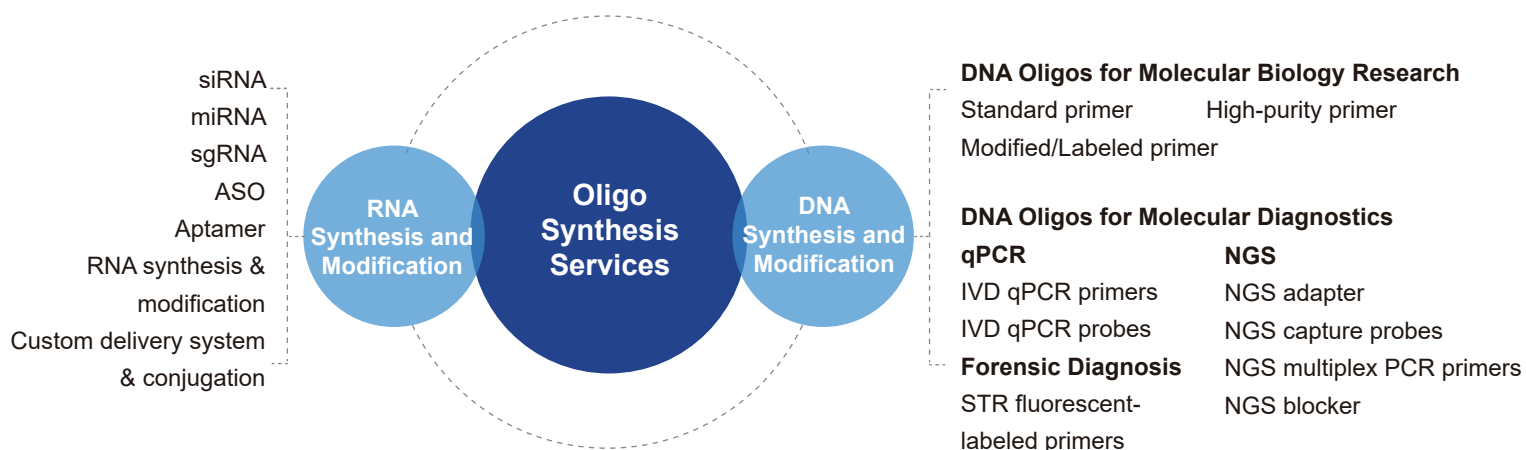


Oligo Synthesis and Modification

GenCefe provides high-quality oligonucleotide design, synthesis and modification services, including standard primers, RNA, qPCR primers and probes, NGS primers and probes, etc. We have established corresponding production processes and quality control standards for different applications, such as scientific research, small nucleic acid drug development, and in vitro diagnostics.



GenCefe Oligonucleotide Platform

■ Service Advantages



High Quality

Purity>95%,
molecular weight bias<0.05%,
batch-to-batch stability



Strict QC

ISO9001 certified,
GMP-like clean room,
customized QC items



Technical Support

Standardized project
management, professional
pre-sales and after-sales
services



Customized Services

Custom design and
synthesis of various primers
and probes, up to gram level



GMP-Like Clean Room



Oligo Synthesizer



HPLC



LC-Mass Spectrometer

■ Applications

Molecular Diagnostics	Nucleic Acid Drugs	Molecular Biology Research
qPCR, NGS, Forensic diagnosis, etc.	siRNA, ASO, Aptamer, etc.	Standard oligos, Modified/labeled oligos

DNA Synthesis Services

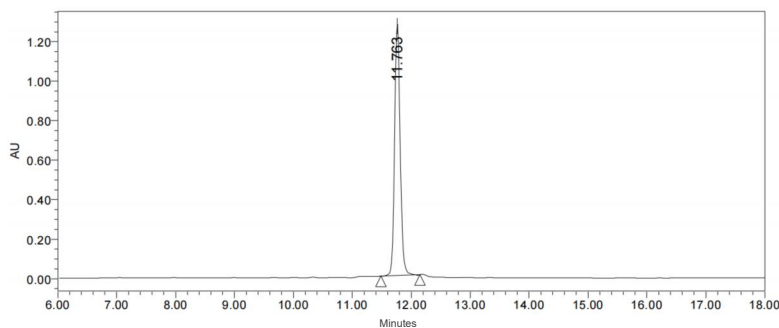
GenCefe's experienced team has established the optimized production process and strict quality control standards. We specialize in custom DNA oligo synthesis services of various specifications and purities, supporting diverse needs such as PCR, cloning, site-directed mutagenesis, molecular diagnostics, etc.

Service Advantages

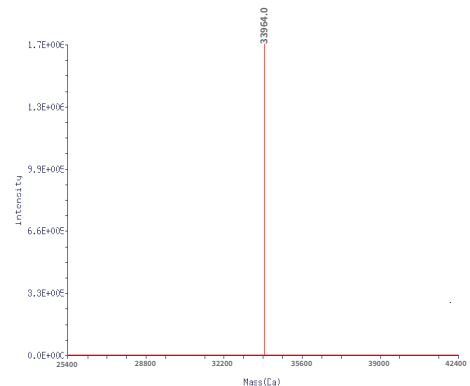
- **Stable quality:** Strict quality control standards, high purity, low molecular weight bias, batch-to-batch stability
- **Customized services:** meet customer requirements of different specifications and purities
- **Fast turnaround time:** production in as soon as 1-2 days, on-time delivery rate is >95%
- **Technical support:** our experienced team provides professional support and prompt pre-sales and after-sales services

Case Study

Purity >95% (detected by HPLC)



The molecular weight is consistent with the theoretical value (detected by MS)



Service Specifications

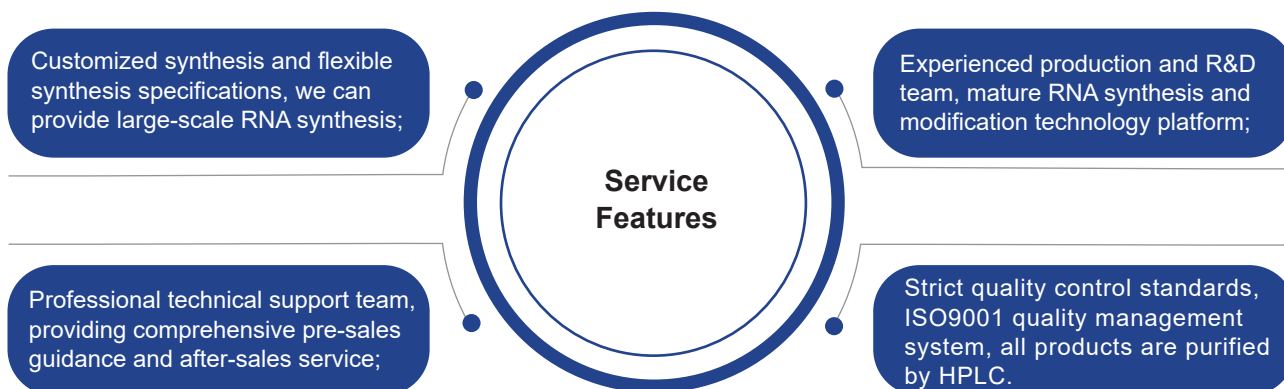
Purification Method	Length	Turnaround Time (days)*	Recommended Applications
RPC	15-59 nt	Starting from 1 day	DNA sequencing, PCR, and gene synthesis, etc.
MOP	15-59 nt	Starting from 2 days	qPCR, multiplex PCR, site-directed mutagenesis, plasmid DNA sequencing, gene synthesis, PCR cloning, etc.
PAGE	15-59 nt	Starting from 3 days	Site-directed mutagenesis, cloning, protein binding gel shift electrophoresis analysis, molecular diagnosis, etc.
	60-90 nt		
HPLC	15-59 nt	Starting from 4 days	Site-directed mutagenesis, cloning, protein binding gel shift electrophoresis analysis, modified primers with hydrophobic groups, molecular diagnostic primers/probes

* Turnaround time refers to the time required to complete the production and delivery of oligos. The actual time to receive oligos needs to consider the logistics time.

For more information about DNA synthesis services, please get in touch with us by email at oligo@gencefebio.com.

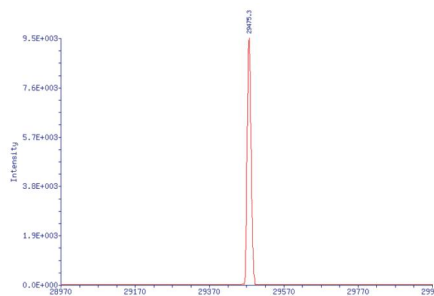
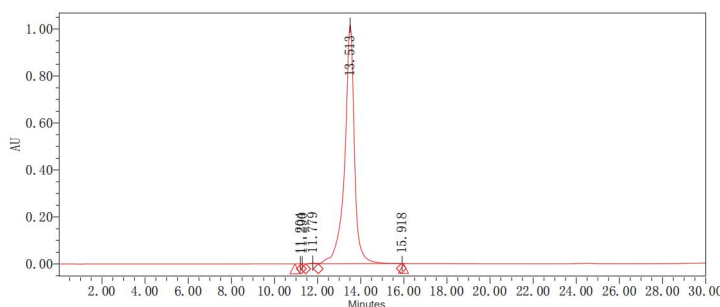
RNA Synthesis Services

GenCefe Biotech provides high-quality siRNA, miRNA, sgRNA, and custom RNA synthesis services. We can design and synthesize RNA Oligos of different lengths, different forms, and with various modifications according to customer's needs, and also synthesize RNA sequences designed by customers. The synthesis scale is flexible, including 5 nmol, 10 nmol, 20 nmol, and large-scale production. The RNA products we deliver are all purified by HPLC, which can remove short RNA fragments caused by condensation and improve RNA purity. ISO 9001-certified facilities and comprehensive quality control reports ensure the delivery of high-quality products.



■ Case Study

90 nt ssRNA, 5'-end Cholesterol modification, purity>99.73%, molecular weight bias<0.05%



■ Service Specifications

We provide high-quality siRNA, miRNA, sgRNA, custom RNA synthesis, and large-scale RNA synthesis services, as well as a variety of modification, fluorescent labeling, and delivery system conjugation services.

Product Name	Length	Amount	Purification Method	Turnaround Time (days)*
RNA oligo	5-100 nt	nmol to μ mol level	HPLC	4-20
Modified/Labeled RNA	5-100 nt	nmol to μ mol level		4-20
Large-scale RNA Synthesis	5-100 nt	OD, nmol, milligram, gram level		Get a Quote

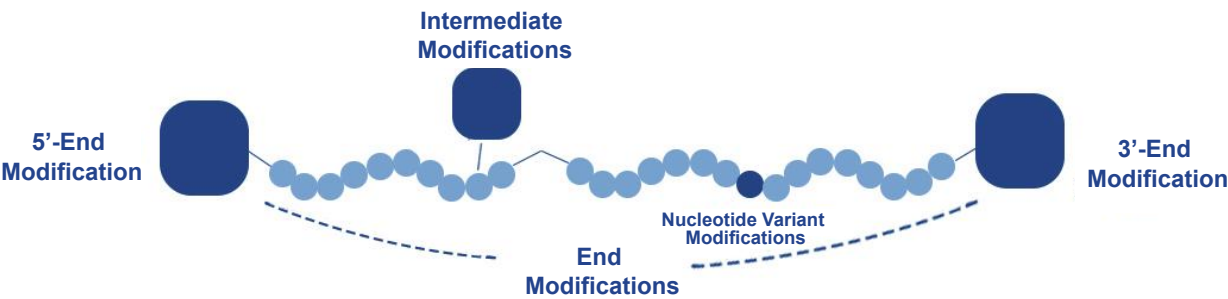
* Turnaround time refers to the time required to complete the production and delivery of oligos. The actual time to receive oligos needs to consider the logistics time.

For more information about RNA synthesis services, please get in touch with us by email at oligo@gencefebio.com.

Oligo Modifications

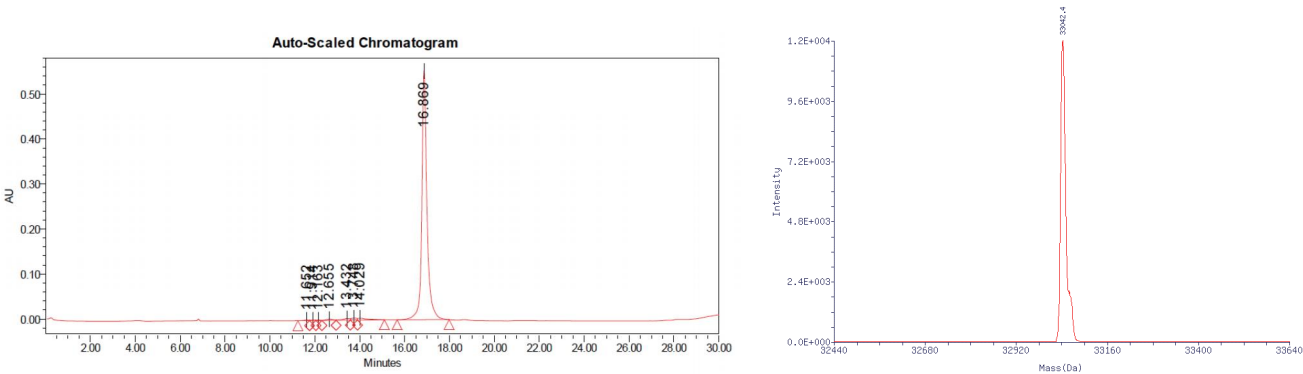
GenCefe provides customized DNA and RNA oligo modification/labeling services, including more than 100 modifications such as biotin, digoxigenin, phosphate, thiol, sulfhydryl, amino, special bases, and a variety of fluorescent groups. 100% of the delivered modified probes/primers have passed mass spectrometry detection to ensure accuracy and purity, meeting the needs of scientific research and industrial-grade modified primers/probes.

Oligo Modification Position



Case Study

125 nt, Spacer18 modification, multiple Poly-T sequences, purity>95.58%, molecular weight bias<0.05%



Service Specifications

DNA Modification Groups:

Rare Bases Modifications	Phosphorothioate Modifications	Phosphorylation Modifications	 View More
Biotin Modification	Amino Modifications	Thiol Modifications	
Digoxigenin Modifications	Fluorescent Labeling	Quenching Groups	
Intermediate Modifications	Other Modifications	Dual-Labeling	

RNA Modification Groups:

Point Modification: 2'-OMe, 2'-MOE, 2'-F, LNA, etc			 View More
End Modifications	Fluorescent Labeling	Special Modifications	
Chimeric RNA	Dual-Labeling	-	
Delivery System Conjugation: GalNAc, Peptide, Liposome, PEG, etc.			

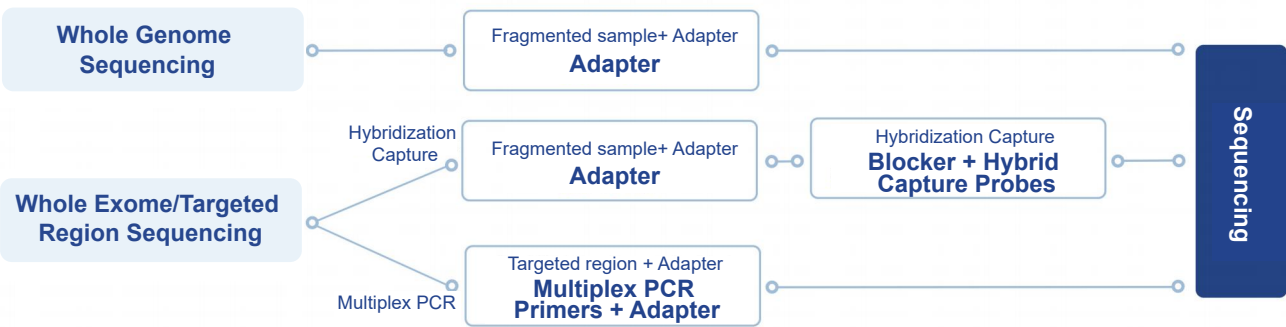
Primers/Probes for Molecular Diagnostic

■ qPCR Primers/Probes

- ISO9001 certified, GMP-like clean room, strict control of pollution sources, avoiding NTC interference
- Advanced production technology ensures product accuracy, high purity, and stable fluorescent labeling
- Standardized operation and strict quality control to ensure batch-to-batch stability of primers/probes

Product Name	Purification Method	Length	Deliverables
qPCR Probes	HPLC	11-59 nt	Tube or 96-well plate Dry powder COA
qPCR Primers	HPLC	11-59 nt	

■ NGS Primers/Probes



Product Name	Purification Method	Length	Deliverables
NGS Adapter	HPLC	20-80 nt	Tube or 96-well plate Dry powder COA
Hybrid Capture Probes	PAGE+, Purity>90%	50-120 nt	
Multiplex PCR Primers	HPLC, Purity>90%	18-100 nt	
NGS Blocker	HPLC, Purity>90%	≤70 nt	

GenCefe Biotech

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