



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 customers' needs, and also synthesize RNA sequences designed by customers. The synthesis scale is flexible, including 2 OD, 5 OD, 10 OD 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.

Customized synthesis and flexible synthesis specifications, we can provide large-scale RNA synthesis;

Experienced production and R&D team, advanced RNA synthesis and modification technology platform;

Professional technical support team, providing comprehensive pre-sales guidance and after-sales service;

Strict quality control standards, ISO9001 quality management system, all products are purified by HPLC.



Service Features

siRNA Synthesis

Small interfering RNA (siRNA) is a double-stranded RNA of 20 to 25 nucleotides, which can participate in the RNA interference (RNAi) and play a role in silencing target genes. RNAi technology can specifically eliminate or turn off the expression of the target genes, and it has been widely used in gene function research and the treatment of infectious diseases and cancers.

GenCefe has an experienced oligonucleotide production team and a professional technical support team. We can provide siRNA design and custom synthesis, including standard siRNA oligos and modified siRNA oligos, to meet customers' specific needs.

Service Specifications

Custom siRNA Synthesis			
Product Name	Size	Purification	Turnaround Time (days)
Standard siRNA	1-2,500 OD	HPLC	4-20 days
Modified siRNA	Quote		

Control siRNAs			
Product Name	Size	Purification	Turnaround Time (days)
NC siRNA	1 OD	HPLC	In Stock
NC FAM siRNA			
GAPDH Positive Control siRNA			
P53 Positive Control siRNA			
Beta-actin Positive Control siRNA			

siRNA Guaranteed Package

siRNA Package	Specifications	Size	Turnaround Time (days)
Standard siRNA Package Modified siRNA Package	siRNA oligos of target gene	3 pairs (3×2 OD) or 4 pairs (4×4 OD)	Starting at 5 days
	NC siRNA oligos	1 pair (1×1 OD)	
	NC FAM siRNA oligos	1 pair (1×1 OD)	
	Positive control siRNA oligos	1 pair (1×1 OD)	

miRNA Synthesis

MicroRNA (miRNA) is a class of non-coding single-stranded RNA molecules with a length of about 22 nucleotides encoded by endogenous genes. They play an important role in the process of cell differentiation, biological development, and disease development. With in-depth research on the mechanism of miRNA, miRNA is expected to provide new ideas for diagnosis and drug discovery and development.

GenCefe's experienced oligo synthesis technology team has developed various miRNA mimics for gain-of-function studies and inhibitors for loss-of-function studies, with different options for both in vitro and in vivo experiments.

miRNA Products and Applications

Product Name	Recommended Use	Applications	Single-Strand /Double-Strand
miRNA mimic	in vitro	To overexpress the target miRNA, and enhance the inhibition	Double-Strand
miRNA inhibitor	in vitro	To specifically inhibit the effect of the target miRNA	Single-Strand
miRNA agomir	in vitro & in vivo	Modified miRNA agomir, to overexpress the target miRNA, and enhance the inhibition	Double-Strand
miRNA antagomir	in vitro & in vivo	Modified miRNA antagomir, to specifically inhibit the effect of the target miRNA	Single-Strand

Service Specifications

Cat. No.	Product Name	Size	Turnaround Time	Cat. No.	Product Name	Size	Turnaround Time
MR0901	miRNA mimic	2 OD	Starting at 4 days	MR0905	miRNA agomir	2 OD	Starting at 7 days
MR0902	miRNA inhibitor			MR0906	miRNA antagomir		
MR0903	miRNA mimic N.C.			MR0907	miRNA agomir N.C.		
MR0904	miRNA inhibitor N.C.			MR0908	miRNA antagomir N.C.		



sgRNA Synthesis

sgRNA (single guide RNA) is known as the command center of the CRISPR/Cas9 gene editing system, which can guide Cas9 to perform targeted editing of DNA. Chemically synthesized sgRNAs usually have low cytotoxicity, and their stability can be enhanced by adding a variety of modifications, thereby reducing off-target effects. Compared with in vitro transcribed sgRNA and plasmid sgRNA, it has the advantages of lower cost, higher editing efficiency, and better batch-to-batch consistency.

GenCefe provides sgRNA design and chemical synthesis services. Deliverables are tested by mass spectrometry for sequence accuracy and purified by HPLC. We are committed to providing sgRNAs with low toxicity, good batch-to-batch consistency, and high editing efficiency.

Service Specifications

Product Name	Length	Size	Purification	Turnaround Time (days)
Chemically synthesized sgRNA	20-100 nt	>2 OD	HPLC	7

Custom RNA Synthesis Services

As an important research tool, RNA oligos are widely used in gene function analysis, disease diagnosis and therapeutic strategy development and other applications. GenCefe provides high-quality RNA custom synthesis services, which can meet the needs of customers in different scales, purities and applications. All products pass MS, HPLC and other detection methods to ensure the delivery of high-quality RNA oligos.

Service Types

Standard RNA synthesis, modified RNA synthesis, RNA/DNA chimeric structure, 2'-OMe-RNA, 2'-F-RNA, 2'-O-MOE-RNA, methylated cytosine (5-Me-dC), locked nucleic acid (LNA) and other ASO synthesis, etc.

Service Specifications

Product Name	Length	Size	Purification	Turnaround Time (days)	
RNA oligo (Single-Strand)	<30 nt	1 - 2,500 OD	HPLC	4 - 20	
	31 - 90 nt				
Modified RNA Fluorescence-labeled RNA	<30 nt	1 - 250 OD		HPLC	4 - 20
	31 - 90 nt				
Large-scale RNA Synthesis	5 - 90 nt	OD, nmol, mg, g, etc.			Quote

GenCefe Biotech

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