Customized *In Vitro* Transcription RNA Synthesis

At Synbio Technologies, we understand that RNA synthesis is a fundamental tool for research and development in a wide range of industries. That's why we offer highly efficient and cost-effective *in vitro* transcription RNA synthesis services, specifically tailored to meet your needs.

Using linear DNA sequences, our T7 RNA polymerase can synthesize long RNA from target DNA sequences with utmost precision and accuracy. We provide one-stop services, from DNA template synthesis to RNA *in vitro* transcription. You can either provide us with the DNA templates or opt for our de novo gene synthesis service for synthesizing target DNA sequences.

We provide a wide range of customized services to meet your specific needs. These services include options such as selecting a 5' cap, specifying the length of the polyA tail, customizing UTR sequences, personalizing protocols, adjusting stock buffer and concentration, and incorporating various nucleoside modifications. These modifications can improve mRNA stability, enhance translation efficiency, and reduce immunogenicity, making them crucial for diagnostic, therapeutic, and research applications.

Furthermore, we optimize mRNA translation efficiency through codon optimization, selecting highly effective sequences for mRNA transcription.

Unbeatable Advantages

Why Choose Our Services?

Sequence Optimization: Synbio Technologies' *in vitro* transcription RNA synthesis service can optimize your mRNA translation efficiency through codon optimization.

Customization: We offer 5' cap, 3' polyA tail, and various nucleoside modifications to enhance mRNA stability and translation efficiency while reducing its immunogenicity.

High Performance: With our standard experimental procedures, professional staff, and abundant expertise, Synbio Technologies offers the most optimized and tailored solutions for your RNA synthesis needs.

One-Stop Service: We provide a full-range service, from DNA template synthesis to RNA *in vitro* transcription, simplifying your research process and saving you time.

Expert Support: As an industry leader in RNA synthesis, Synbio Technologies provides expert support to ensure that you achieve the highest quality RNA synthesis results possible.

mRNA Synthesis

- Cap0/ Cap1 analogs + transcription 120 poly(A) tail using template
- Cap0/ Cap1 analogs + post-transcription with poly(A) tail
- Enzymatic capped + transcription 120 poly(A) tail using template
- Enzymatic capped + post-transcription with poly(A) tail

Standard RNA Synthesis

- ssRNA and dsRNA synthesis without UTR region, cap structure, and poly(A) tail

LENGTH
Up to 9 kb.

PURIFICATION METHOD
Column Purification, LiCl purification, Phenol/Chloroform Extraction.

QUALITY CONTROL
Default QC includes A260/280 ratio and denaturing gel electrophoresis. Additional QC tests include DNA template residue test, Mycoplasma contamination test, Sterility test, RNA Sequencing.

TURNAROUND TIME
1-2 weeks.

MODIFICATIONS
N1-Me-Pseudo-UTP, Ψ-UTP, 5m-CTP, AF488, Cy3, Cy5.
Cap analogs: Cleancap AG, ARCA cap, m7GPPPG cap

DELIVERABLES
Lyophilized plasmid with synthesized DNA sequence, From 2 ug to multi-milligram scale liquid RNA, COA files.

PRICE
Starting at $200.
**Ask us about our price match policy!*

At Synbio Technologies, we pride ourselves on providing highly efficient and cost-effective *in vitro* transcription RNA synthesis services, customized for your specific needs. Whether you need to improve mRNA translation efficiency through codon optimization or enhance the stability and translation efficiency of mRNA through 5' cap and 3' polyA tail modification, our team of experts has you covered. Our standard experimental procedures and professional staff ensure the most optimized and tailored solutions for your project, while our one-stop service from DNA template synthesis to RNA *in vitro* transcription provides a seamless experience. Trust us to provide advanced solutions for efficient mRNA synthesis, and maximize the impact of your research today.