ArtPure™ RNA Polymerases — Driving superior mRNA Quality

Ternaria Biosciences

Ternaria's mRNA is made using RNA polymerases that have been purified using our proprietary **ArtPure™ technology**. Comparison with industry standards shows preferable RNA yields and lower dsRNA by-products.

Our ultra-pure RNA polymerases are characterized by:

- > 99% enzyme purity
- No added enzyme inhibitors
- Animal origin-free (AOF)
- Lyophilized option for eco-friendly shipping and storage
- High specific enzymatic activity resulting in high quality RNA
- Free of contaminants (RNases, nucleases and proteases)

High enzyme purity

+

No additives

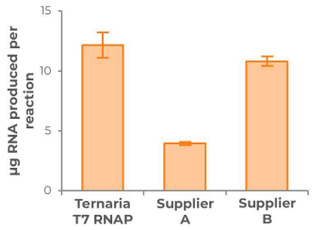
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Superior RNA quality

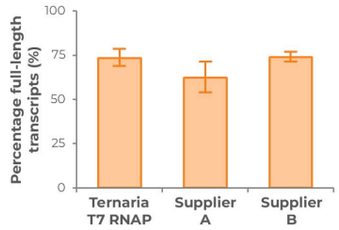
ArtPure™ enzymes are available as glycerol-based solution and lyophilized option, offering the possibility to ship enzymes at room temperature without compromising their superior quality.

T7 RNA POLYMERASE

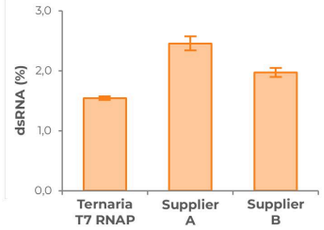
Superior RNA yield



High RNA Integrity

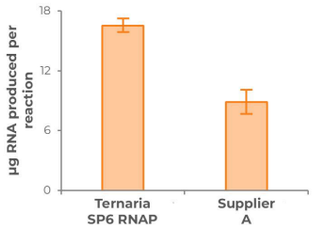


Low dsRNA by-products

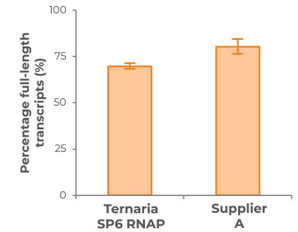


SP6 RNA POLYMERASE

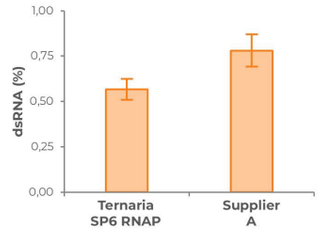
Superior RNA yield



High RNA Integrity



Low dsRNA by-products



NORTHSCRIBE ARCA TRANSCRIPTION KITS

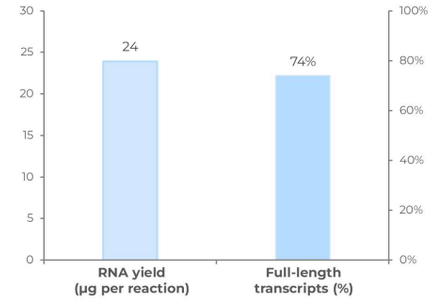
Ternaria Biosciences

The **NorthScribe ARCA Transcription kits** enable the production of high yields of **ARCA-capped (Cap-0) mRNA** through *in vitro* transcription using either **T7** or **SP6 RNA polymerase**. Each reaction can yield 20–25 µg of mRNA. This is possible thanks to optimized reaction conditions, nucleotide concentrations and a GTP-ARCA ratio that ensures maximum yield, transcript integrity and efficient capping.

The nucleotides and the ARCA are available either as a convenient 5x mix, or in individual vials, allowing flexibility for incorporating modified nucleotides into transcription reactions.

High yield and RNA integrity

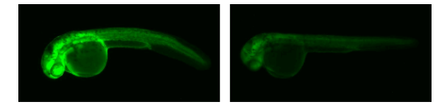
SP6 NorthScribe Transcription Kit



Validated across multiple model organisms

Gene expression verified in Zebrafish

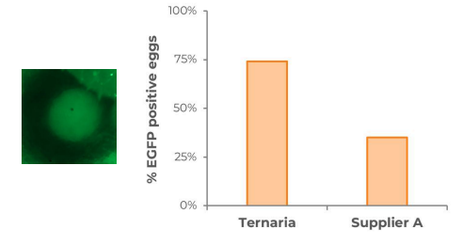
EGFP-encoding mRNA produced with Ternaria's NorthScribe ARCA Transcription Kit demonstrated superior performance in zebrafish microinjection experiments, yielding enhanced EGFP expression compared to mRNA produced with a leading supplier's kit.



Ternaria | Supplier A

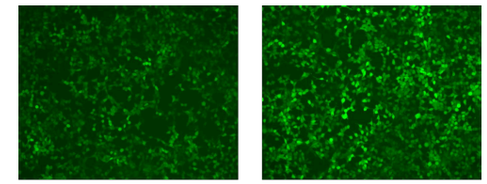
Efficient expression of mRNA in Salmon eggs

Injection of salmon eggs with mRNA encoding EGFP synthesized using NorthScribe ARCA Kit conditions resulted in approximately twice as many EGFP-positive eggs compared to transcripts generated using a leading supplier's kit.



m¹Ψ-NORTHSCRIBE ARCA TRANSCRIPTION KITS

Our **m¹Ψ-NorthScribe ARCA Transcription kits** combine **ARCA** cap analog and and **N1-methyl-pseudouridine (m1Ψ)** to help improve transcript stability, minimize immunogenicity and enhance translation efficiency.



NorthScribe ARCA Transcription kits | m¹Ψ-NorthScribe ARCA Transcription kits