

FACTSHEET



mRNA TECHNOLOGY



→ DIRECT LINK



BIOSOLUTIONS BY **PAN**TM / MEDIA / REAGENTS / BUFFER



PAN-Biotech is a leader in the emerging field of mRNA technology, providing solutions that support the development and production of mRNA-based therapies and vaccines.

/ mRNA SYNTHESIS:

We offer high-quality reagents that facilitate the synthesis and modification of mRNA molecules, ensuring the production of stable and effective mRNA therapies.

/ PROCESS DEVELOPMENT:

PAN-Biotech collaborates with researchers and industry leaders to optimize mRNA production processes, ensuring scalability and consistency in large-scale manufacturing.

/ CUTTING-EDGE RESEARCH:

We are committed to advancing mRNA technology through ongoing research and innovation, driving the development of new therapies for a wide range of diseases.

PROVEN CELL CULTURE MEDIA:

■ HEK293 Cells:

Panserin 293S, Panserin 293A, Panserin 401

UPSTREAM (USP)

TEMPLATE DNA PREPARATION

- Plasmid DNA (containing the gene of interest)
- Restriction Enzymes (for plasmid linearization)
- DNA Purification Kits (to purify linearized DNA)
- WFI quality water/Nuclease-free water

IN VITRO TRANSCRIPTION (IVT)

- Nucleotides (ATP, CTP, GTP, UTP)
- T7 RNA Polymerase (for mRNA synthesis)
- RNase Inhibitor (to prevent RNA degradation)
- Capping Reagents (e.g. m7G Cap analog)
- Customized Transcription Buffers (specific for IVT reaction)
- WFI quality water/Nuclease-free water

DOWNSTREAM (DSP)

PURIFICATION

- Customized Solutions for RNA purification (e.g. high salt buffers, EDTA, Triton X-100)
- WFI quality water/Nuclease-free water
- Endotoxin Removal Solutions

MANUFACTURING OF LIPOSOMES/LNPS AND ENCAPSULATION OF mRNA

- Tertiary Butanol (for cryoprotection during lyophilization)
- Solvents for Lipid Stock Solutions (organic solvents e.g. ethanol, acetic acid)
- Customized Solutions for Solvent Removal (e.g. exchange buffers for tangential flow filtration or dynamic dialysis)
- Customized Cryoprotectant Solutions (e.g. Sucrose Solutions)
- WFI quality water/Nuclease-free water

THERAPEUTIC AGENT FORMULATION (EXCIPIENTS GRADE)

- Adjuvants
- Stabilizers
- Preservatives
- Customized Buffer Solutions (e.g. Phosphate buffers)
- Saline Solutions
- WFI quality water/Nuclease-free water

Products highlighted in **"RED"** are currently available / customized production with short delivery time!

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