

Our company

At Quantoom Biosciences, scientists and engineers are committed to solving some of the biggest challenges facing (sa)mRNA-based vaccines and therapeutics production.

Located in Belgium, Quantoom Biosciences thrives in a dynamic biotech ecosystem, driving innovation in RNA (i.e. mRNA and saRNA) production to make life-changing therapies available to everyone, everywhere.

BELGIUM

Quantoom Biosciences Headquarters.
Showroom for Ntensify® technologies.

Visit our website



www.quantoom.com

Rue de la Maîtrise 11
1400 Nivelles
BELGIUM

Get in touch!

✉ bd@quantoom.com
🌐 www.quantoom.com

Ntensify[®]mano

Quantoom
Biosciences

mRNA production and purification kit for up to 3 mg

The **Ntensify mano** is an all-in-one, cost-effective mRNA production and purification kit combining convenience, efficiency, and control. It includes all reagents needed to produce up to 3 mg of purified mRNA in less than half a day.

This mRNA production kit performs the **Ntensify process** for cost-effective production of purified mRNA, with a high-quality profile while minimizing impurities.



Key figures

Up to
3 mg
of purified
mRNA

From linear
DNA to purified
mRNA in under
3 hours

1 pot IVT
with co-
transcriptional
capping

1-step
magnetic silica
bead-based
purification

Supplied with
regular and
modified
uridines

Redesigned Process

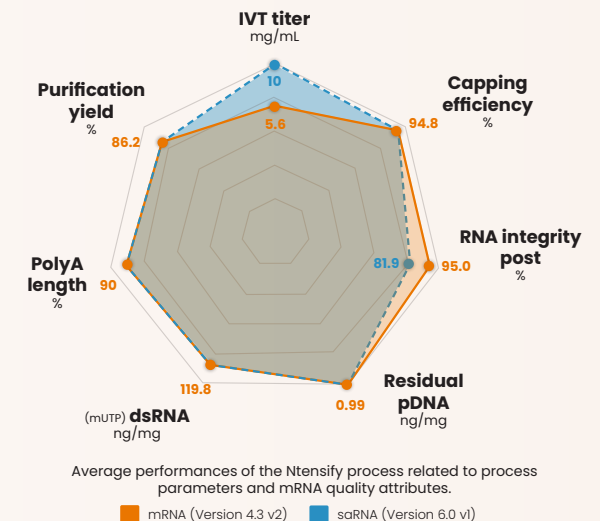
By opting for a single-step bead-based purification method to streamline DSP and reduce process-related losses.

Optimized Process

By optimizing the IVT & DSP to increase RNA quality, minimizing the DSP constraints.

Demonstrated by robust DoE

- > 2000 individual mRNA reactions
- > 500 individual saRNA reactions
- 100+ Different constructs tested
- Different mRNA Sizes (1 to 4kb)
- Different saRNA sizes (8 to 12Kb)



Trusted by



Supported by



Member of



Tailored for the **Ntensify process**

Conventional process	IVT	Post transcriptional capping	Oligo DT	Polish	UF/DF	Simplified process By reducing the number of steps & required unit operations
Ntensify process	IVT with co-transcriptional capping		Silica-based magnetic beads			



The kit contains 8 mixes, including cap-analog, uridine, pseudo-uridine, and methyl pseudo-uridine. mRNA can be produced in less than half a day and uses standard lab equipment such as a thermo-shaker, a vortex and a benchtop centrifuge making it accessible to researchers of all experience levels.

	IVT RNA transcription										Purification RNA purification	
Vials	Control DNA	Mix 1a	UTP	Ψ-UTP	m1-Ψ-UTP	Mix 2	Mix 3	Mix 4	Mix 5	Mix 6	BB	NFW
Components	Nucleotides and cap analog					T7	IVT buffers	DNase	IVT block	Magnetic beads	Binding buffer	Nucleases-free water
Labels			U	P	M							
Storage box	-20°C										RT	

Visualization of Ntensify mano components and process: integrated IVT and purification.

Best purified using our **Ntensify manomag**

The Ntensify manomag is finely calibrated for optimal retention of the magnetic beads, enhancing purification efficiency and mRNA yield. This ensures consistently high-quality mRNA production.

Click or scan the QR code to watch a video demonstrating the use of the Ntensify mano and Ntensify manomag.



Easy-to-use **protocol**

The Ntensify mano mRNA production kit also contains an easy-to-use protocol, designed for user convenience. All reagent mixes are optimized to work together, enabling high mRNA yield while minimizing process-related impurities. Additionally, we deliver the mixes in compact boxes with clear labeling on each cap, further easing handling operations.

Click or scan the QR code to download the protocol.



Adopted by



CNC – University of Coimbra Portugal used the Ntensify mano kit and approves its quality!



Berkeley
UNIVERSITY OF CALIFORNIA

"We are happy to inform you that the mRNA synthesized with your Ntensify mano kit was as good as the quality from CDMOs within the industry."



"Using the Ntensify mano, we achieved low impurity levels and excellent in vivo efficiency with bispecific antibody-encoded mRNA for colorectal cancer treatment in mice."

Ntensify **product line**

All the production technologies in our product line leverage the same Ntensify process, at any scale. This confers reproducibility to our product line and enables consistency of CQA's and CPP's at every scale, from R&D to commercial production in GMP facilities.

mano



Entry point for RNA construct assessment
In vitro & in vivo studies

micro



Drug discovery & pre-clinical phase
Up to 96 constructs

mini



Drug discovery & pre-clinical phase
Up to 48 constructs

midiflex



Clinical trials & commercial production

mRNA capacity per batch (purified naked mRNA)

125 µg – 3 mg

400 µg – 100 mg

8 mg – 92 mg

0.1 g – 4 g

saRNA capacity per batch (purified naked saRNA)

320 µg – 2.5 mg

640 µg – 128 mg

10 mg – 123 mg

0.128 g – 5 g

Level of automation & run duration

Manual in 4 hours

From 4 to 6 hours

Automated in under 1 day