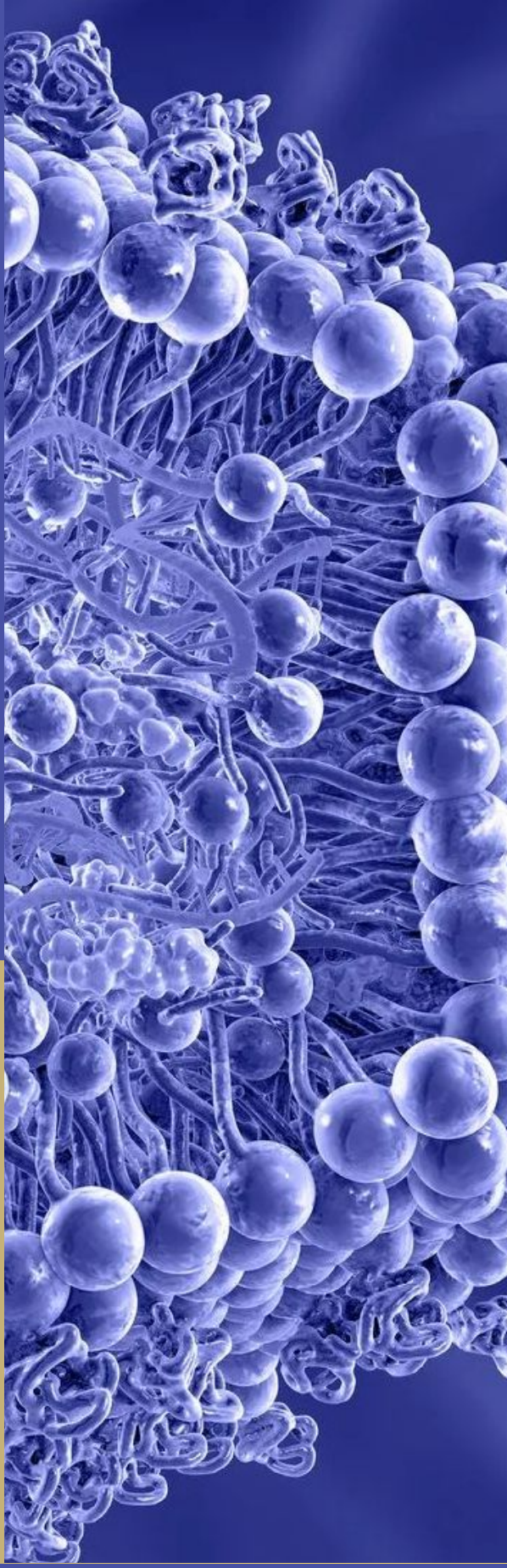
RheaVita

RheaLyo™ Use Case: mRNA LNP

Learn how you can freeze-dry your lipid nanoparticles and ensure thermostability at higher temperatures.



YOUR FORMULATION DESERVES THE BEST

- **Fast**
  Freeze-drying in a few hours
- **Long-term stability at 37°C**
  Transfection effectivity retained
- **Guaranteed quality**
  RheaLyo PAT at single vial level
- **Continuous**
  The only commercial continuous Lyo technology

Your formulation deserves the best

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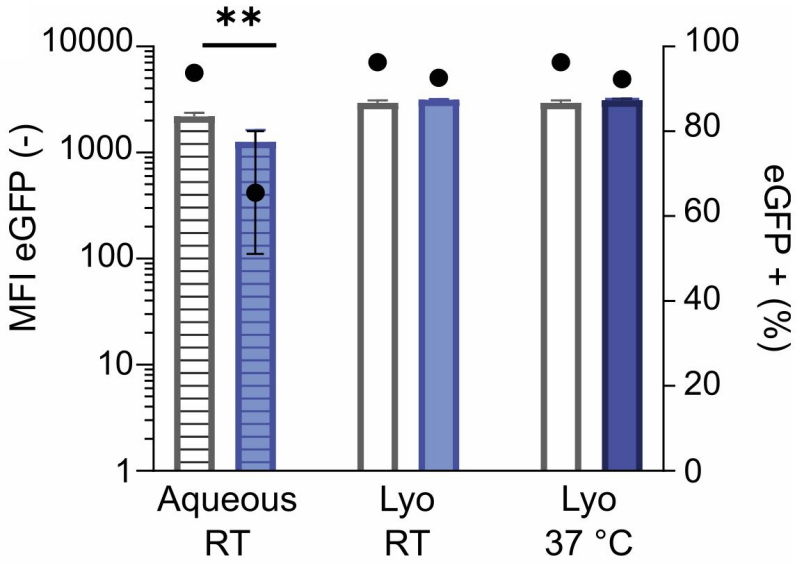
RheaLyo Use Case mRNA LNP

Key results

For the aqueous mRNA LNP dispersions stored at room temperature we observed a drastic decrease in both the number of transfected cells and the Mean Fluorescence Intensity. In contrast, lyophilized samples did not lose their transfection efficiency after 12 weeks when stored at 22°C or even at 37°C, demonstrating the clear advantage of lyophilization. Encapsulation efficiency was maintained for 8 weeks, both for lyophilised and aqueous mRNA LNPs.

Reference: Journal of Controlled Release 357 (2023) 149–160



Transfection efficiency in HEK293T cells, expressed as Mean Fluorescence Intensity (MFI) of eGFP in viable cells at weeks 0 (grey) and 12 (blue).

CONTACT

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