QUINTARA

Accelerate Your mRNA Discovery

From Sequence to mRNA-LNP

Content

- mRNA-LNP Platform Scientific Data
- Our Key Differentiators to Accelerate your Research

Accelerate Development with Reliable IVT-mRNA Performance Data

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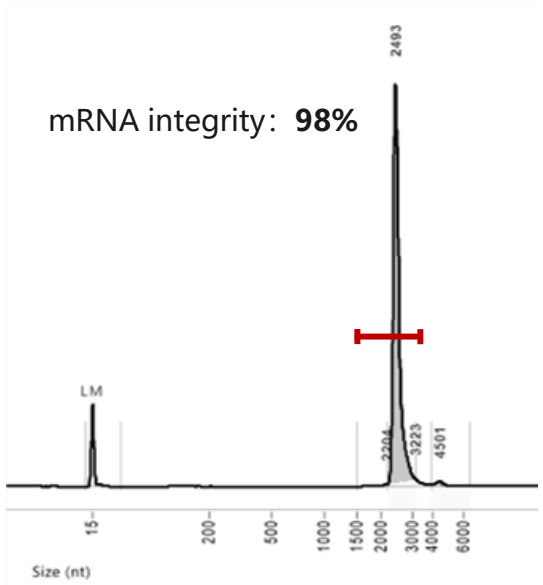
IVT-mRNA synthesis

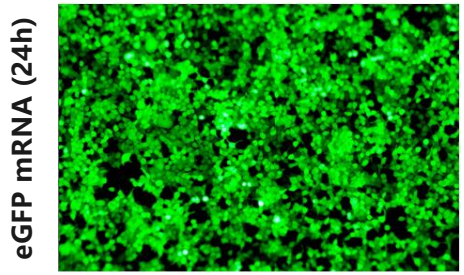
High Purity & Integrity

- **Low dsRNA: < 0.1ug/mg**
- **Low Endotoxin: <10EU/mg**
- **High mRNA Integrity: 98%**

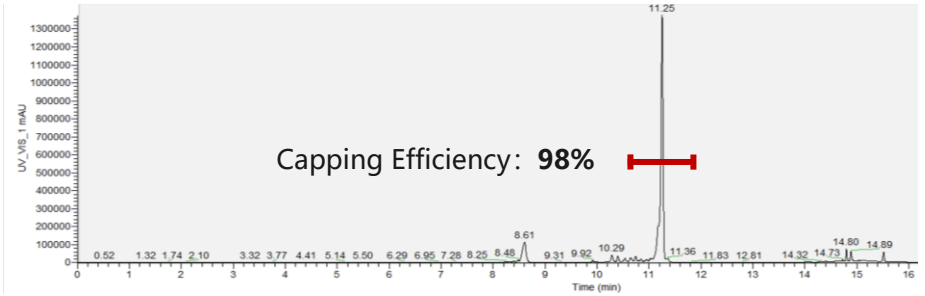


High Performance

1. **Validated High Expression:** Demonstrated via in vitro eGFP mRNA delivery (24h post-transfection)



2. **Industry-leading Capping Efficiency: 98%**



Accelerate Development with Reliable Performance Data

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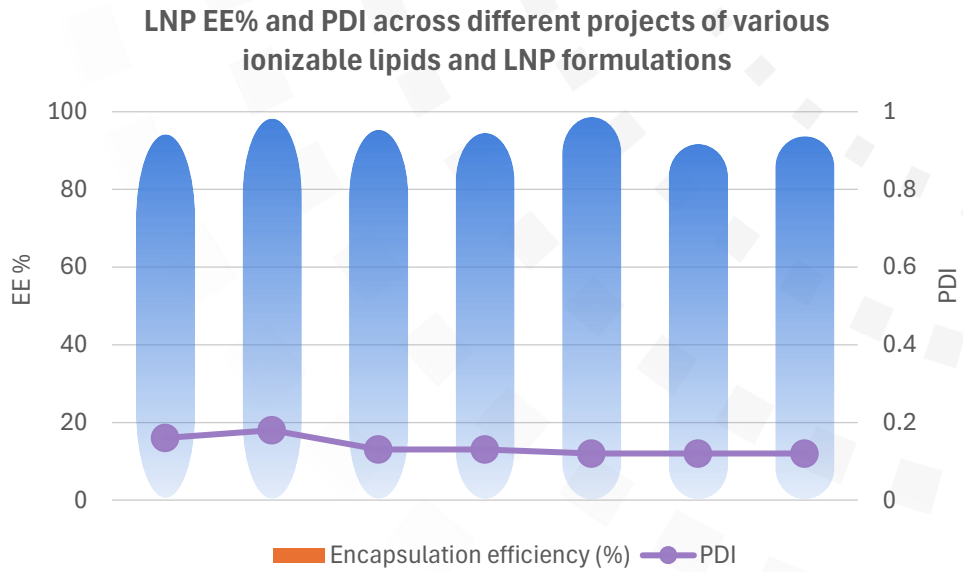
LNP formulation

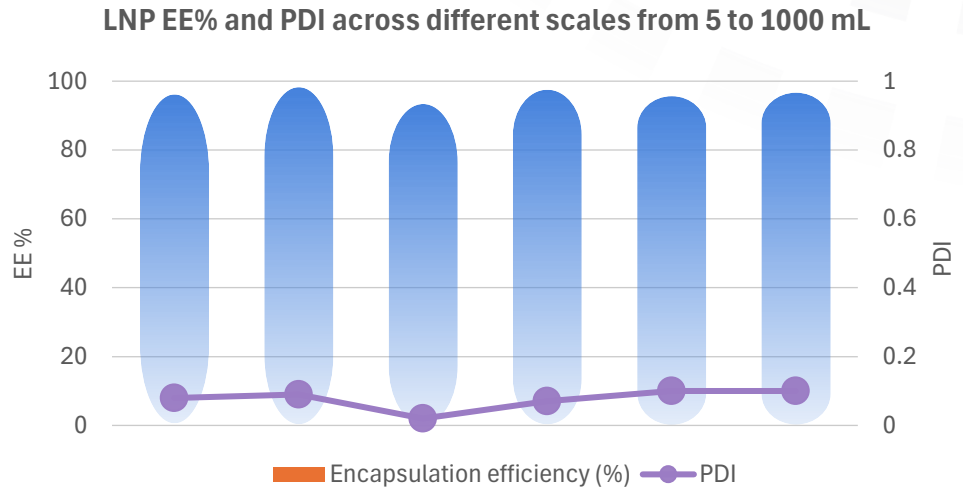
Strong Formulation Development Capability

- Experience with **25+ Novel Lipids** development and manufacturing
- High mRNA concentration formulation: **3.8mg/mL** with EE up to **98%** and PDI **0.02**

Robust Technical Platform

- **High EE > 90**: 96% on platform avg.
- **Low PDI < 0.2**: 0.1 on platform avg.
- Representative process across all scales and proven **R&D -> Phase II GMP** process consistency for over 20 IND enabling mRNA-LNP projects





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Integrated in-vivo CAR products & solutions

Stable targeting LNP (tLNP) platform
Integrated IP and analytics solutions
Proven track records

Integrated in-vivo CAR products & solutions

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- Your End-to-End Partner From Sequence to Product -

Our Conjugation Platform: Precision & Scalability

- Highly consistent conjugation process
- **High conjugation efficiency**
- **Robust gram-scale process**
- Stringent impurity control (low residual antibody)
- Full capability for IgG, VHH, scFv, Fab

Comprehensive ab-tLNP Analytical Package

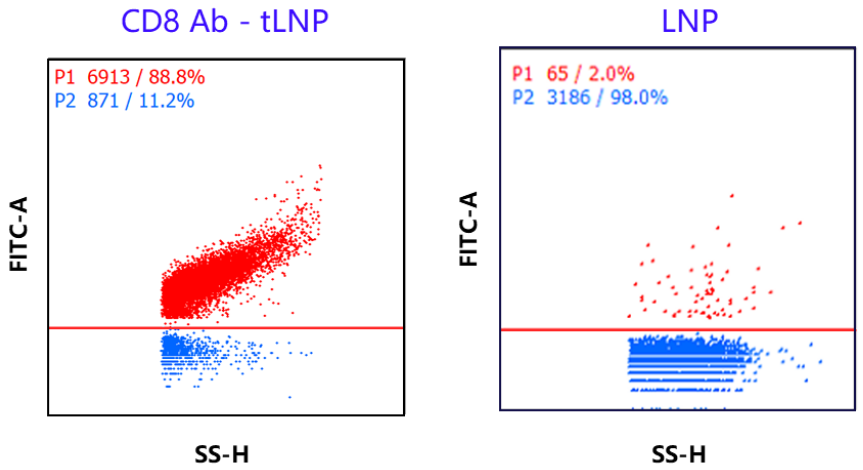
- **Antibody conjugation efficiency & density**
- **Conjugated antibody binding activity**
- Residual antibody
- Conjugation-related residual reagents
- Drug loaded / empty LNP ratio

Ab-tLNP: High Antibody Conjugation Efficiency

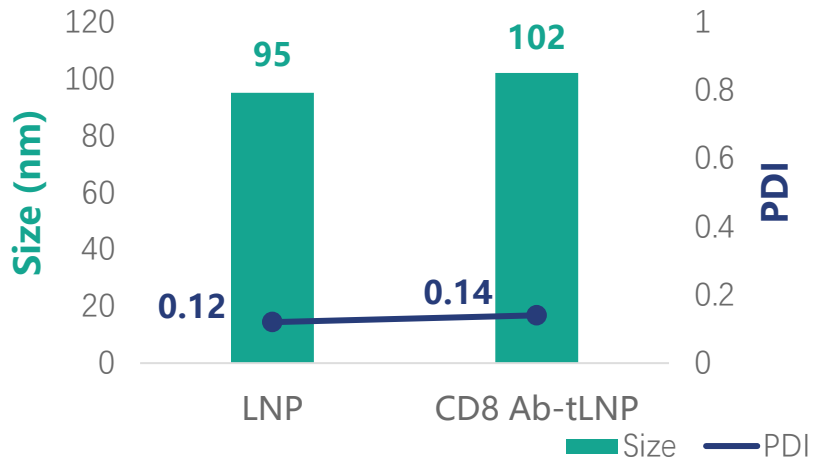
× Technical Challenge：

1) Unstable Conjugation Process
2) Low Conjugation Ratio
3) Excessive Particle Size and Poor Homogeneity Post-conjugation

NanoFACS Analysis of Antibody Conjugation Efficiency on tLNPs



Particle Size and PDI Analysis: Pre- vs. Post-Antibody Conjugation



Platform Advantages

- Achieves **~90% antibody conjugation**, ensuring reliable in vivo targeting efficiency
- Maintains **a consistent size (~100 nm)** upon conjugation, which prevents macrophage clearance and ensures optimal delivery efficiency

Ab-tLNP: Conjugation of Diverse Antibodies

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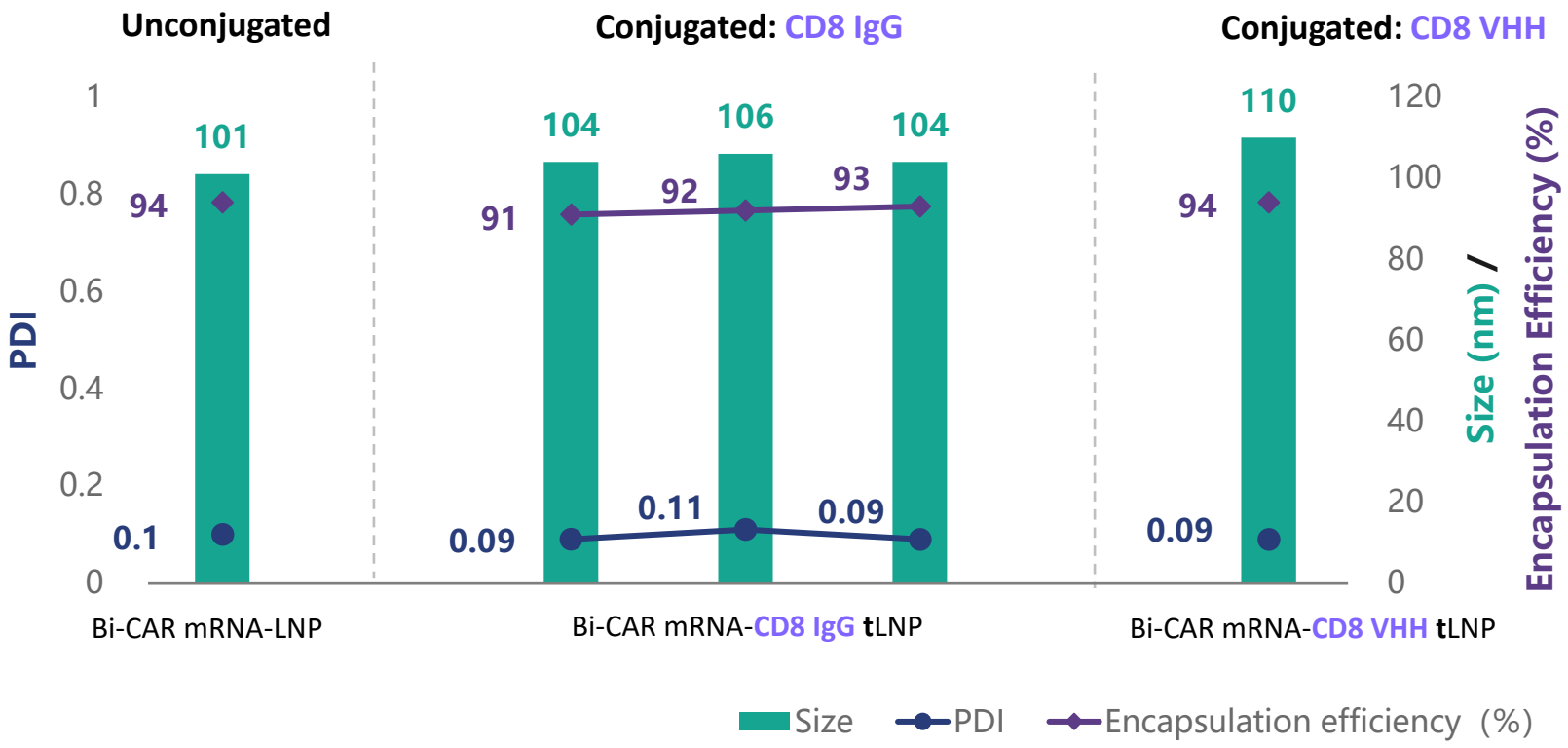
Case Study

Consistent Nanoparticle Properties & EE%: Conjugation of a Bispecific in vivo CAR mRNA LNP with Various CD8 Antibodies

Size, PDI and EE% Analysis: Pre- vs. Post-Antibody Conjugation



Key Findings

Post-Conjugation:

- ✓ Minimal Change in Particle Size
- ✓ Consistent PDI
- ✓ Stable EE% >90%

Capabilities

All Antibody Formats:

- ✓ IgG
- ✓ VHH
- ✓ scFv
- ✓ Bispecific Antibodies
- ✓ .....

Why Partner With Us ?

QUINTARA

Your Trusted mRNA Development Partner

Unmatched Speed & Expertise

- Deliver research-ready mRNA in as fast as 3 weeks (from gene synthesis to mRNA)

Cost-Efficient & Uncompromising Quality

- Premium Quality at Optimized Cost
- Volume Discounts & Launch discounts
- Different QC packages to meet various scenarios and research phases

Flexible & Scalable

- Highly Customizable Options (NTP, Capping, poly A tail)
- Tailored Scales and Testing Options to meet all needs at pre-clinical phases (0.2 mg to 100 mg)

Customer-Centric Collaboration

- One-stop-shop "gene-to-mRNA" service
- Free-to-operate (FTO) solutions to eliminate IP concerns for our clients

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Thank you.

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Head of mRNA business