



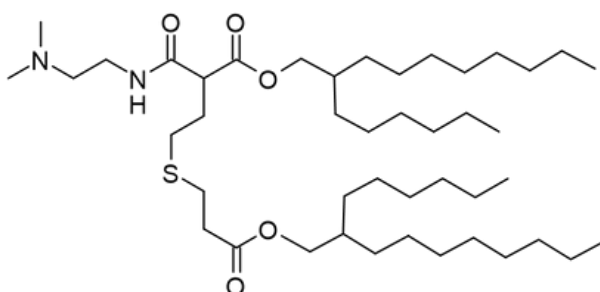
CP-LC-1254

Product number 860807

CP-LC-1254 is manufactured and distributed under license from Certest Biotec S.L. CP-LC-1254 is an ionizable lipid that successfully encapsulates mRNA. In vivo studies carried out in mice show that lipid nanoparticle (LNP) formulations using ionizable lipid CP-LC-1254 exhibit comparable mRNA expression and favorable safety profiles compared to industry leading formulations in the industry. LNPs formulated with CP-LC-1254 have shown a primary biodistribution in the spleen and exhibit high endosomal escape.

Key product features include:

- Comparable mRNA expression compared to industry leading formulations
- β -thioester bond enables higher biodegradability compared to industry leading ionizable lipids
- Splenic delivery of nucleic acid payloads
- Improved safety profiles compared to other industry leading formulations



Product information

Physical and chemical properties

CAS number ¹ 3040859-52-4

Molecular weight 755.2

Purity and material grade >99%, Research-Use-Only, not intended for use in humans

Storage temperature -20 °C

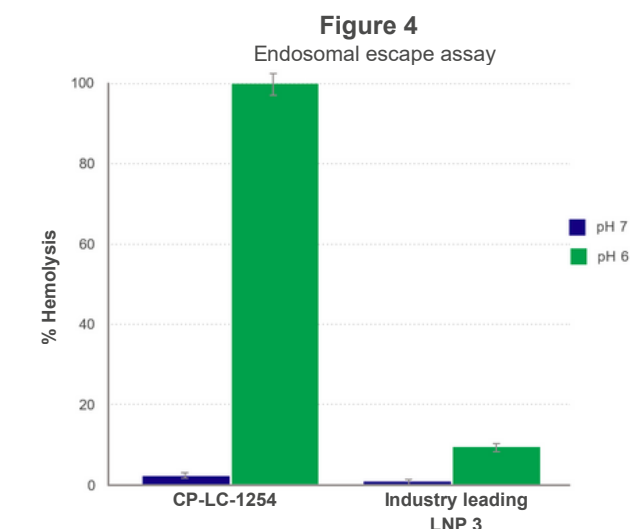
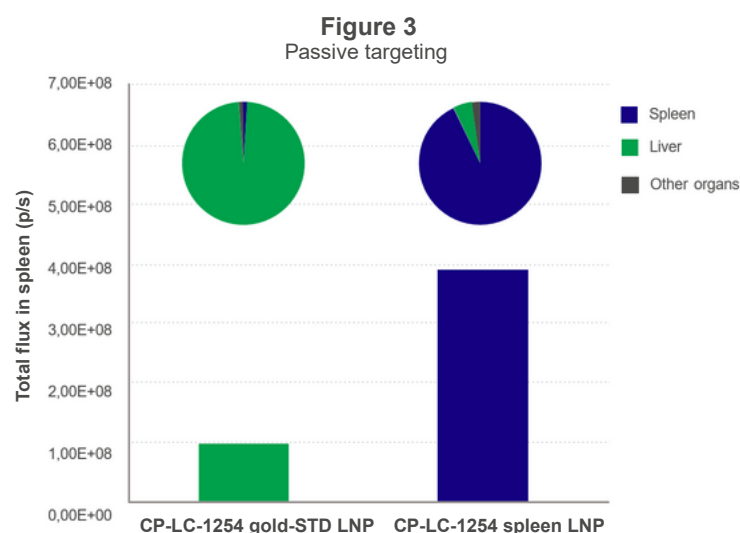
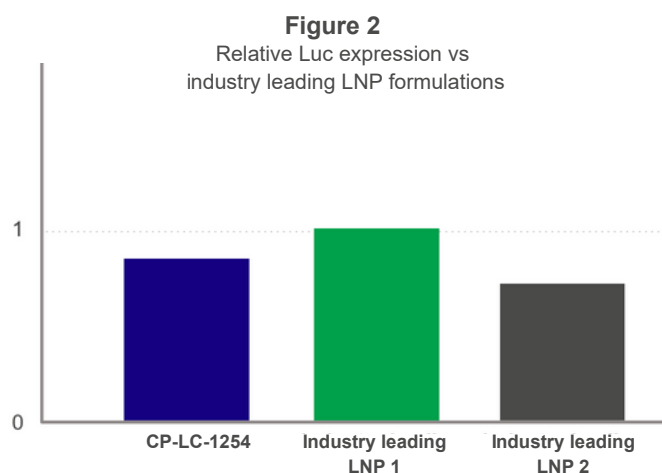
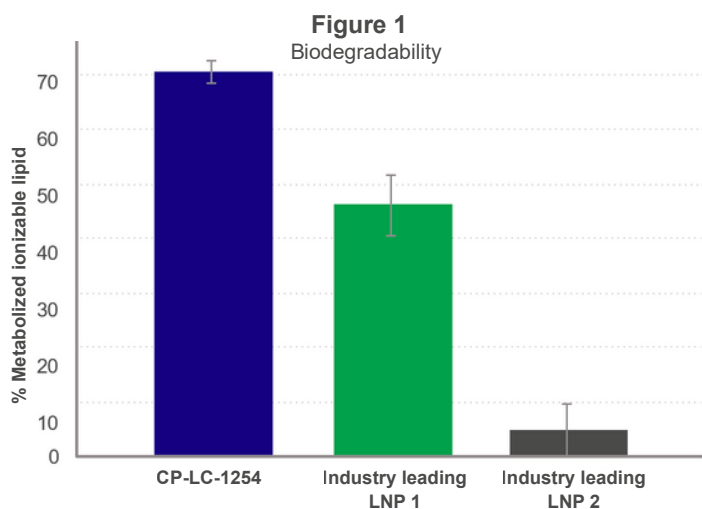
Application Splenic delivery of mRNA via lipid nanoparticle formulations (LNPs)

pKa (measured by TNS fluorescence titration) ~6.9

¹CAS is a registered trademark of the American Chemical Society

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Non-warranty

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Table 1

Lipid nanoparticles formulated with 50 mol% CP-LC-1254, 10 mol% DOPE, 38.5 mol% cholesterol, and 1.5 mol% DMG-PEG2000 with an N/P 6 exhibit the following physicochemical attributes.

Physicochemical attributes	
Size	70-115 ¹ nm
Polydispersity	< 0.2
Zeta potential	~ - 8
Encapsulation efficiency	> 91%

¹ dependent on payload size and fluid flow processing parameters

Did you know that Avanti Research™ offers formulations services?

Not sure how to formulate with CP-LC-1254?

Want to perform feasibility studies without equipment investment?

Avanti Research formulations experts are ready to help you turn your product ideas into reality. We provide support and guidance from initial concept through to full-scale production!