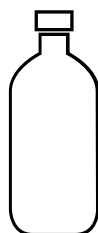


September 2025

EZ-LNP™ Spleen Delivery Kit



1.0 mL (cat. no. TT300006)

Instrument-free LNP kit enabling effective RNA delivery in vivo.

RUO

For Research Use Only



www.origene.com

REF

TT300006



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Product Overview

EZ-LNP™ is a specialized lipid nanoparticle (LNP) kit, engineered for in vivo spleen-targeted delivery—ideal for researchers conducting gene editing, RNA therapeutics, or spleen-centric translational studies. It offers a user-friendly, efficient approach to delivering nucleic acids directly to the spleen, without the need for microfluidics or complex formulation systems.

Component Description

The kit is shipped on blue ice. Once received, store the components as indicated below.

Table 1. Storage Conditions for the Components

Component	Storage
EZ-LNP	4°C
RNA Buffer	4°C

Note: For long-term storage (2 months or greater), store EZ-LNP at -20°C.

Recommendations:

- Applications:** In vivo transfection
- Compatible RNA types (cargo):** mRNA, circRNA,gRNA, siRNA, saRNA or any combination
- Reporter RNA:** eGFP mRNA, Luciferase mRNA
- Best Use for:** gene/base/prime editing, protein replacement therapy, siRNA delivery

Note:

- The **In Vivo Luciferase mRNA Transfection Protocol** outlined below is used as guidance. For other RNAs, the dose and readout time may need to be optimized.

Protocol: In Vivo Luciferase mRNA Transfection - Mouse

LNP Formulation:

1. Warm EZ-LNP reagent to 37°C for at least 10 minutes.
2. Dilute firefly luciferase (f-Luc) mRNA in RNA Buffer to 130ng/μL (confirm with Nanodrop or equivalent).
3. In a clean Eppendorf tube, add 1 volume of EZ-LNP ranging from 10uL-100uL (e.g., 30uL).
4. Quickly add 3 volumes of RNA solution ranging from 30uL-300uL (e.g., 90uL) to EZ-LNP.
5. Immediately pipette up/down 20x (rigorously), or vortex for 3 seconds.
6. Filter the RNA-LNP mixture using a 0.45μm syringe filter and keep the filtrate on ice. Use the same day for best results.

Administration:

- Inject 100μL (10μg RNA) intramuscularly in each mouse.

Readout:

- Perform whole-body IVIS imaging 6 hours post-injection following luciferin administration.

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