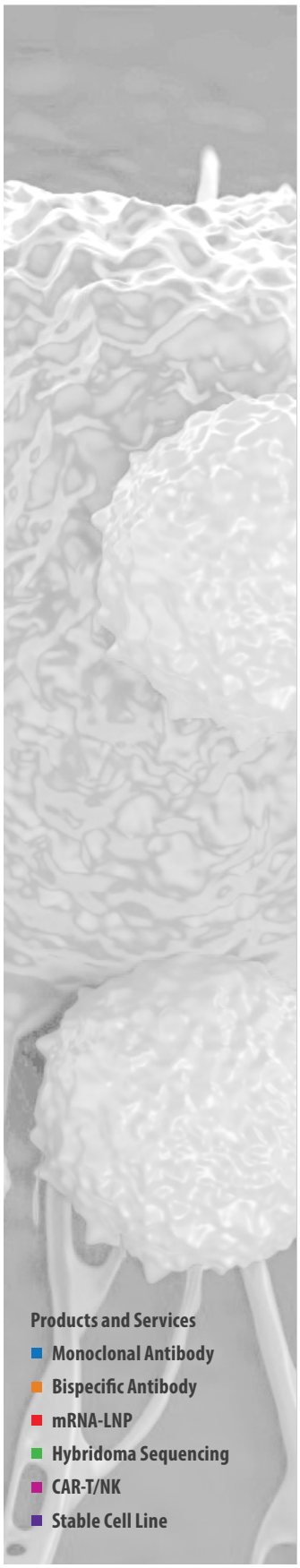
ProMab Biotechnologies, Inc.

mCherry/Luciferase mRNA-LNP

Ready-to-use lipid nanoparticles



Order Information

Catalog#	Size	GenPept No.
PM-LNP-0023	200uL	

Description

mCherry is a member of the monomeric red fluorescent protein (mRFP) mFruits family, derived from DsRed of the Discosoma sea anemone. mCherry is a fluorescent protein chromophore used as a tool to visualize genes and analyze their function in experiments. mCherry absorbs light in the range of 540-590 nm and emits light in the range of 550-650 nm. Luciferase is an oxidase that produces bioluminescence and is widely used in biotechnology as a reporter gene. Unlike fluorescent proteins, luciferase does not require an external light source, but requires the addition of the substrate luciferin. This product is designed as a tool for the delivery and expression of mCherry-Luciferase mRNA for research. The product leverages the lipid nanoparticle (LNP) technology platform for simple and

Composition

mRNA-LNPs suspended in PBS (-Ca, -Mg) (pH: 7.0-7.4).

Translated Protein sequence

ProMab Biotechnologies, Inc. | 2600 Hilltop Drive, Building B, Suite C320, Richmond, CA 94806 USA
Toll free 1-866-339-0871 | 1-510-860-4615 (Sales) | 1-510-860-4614 (Technical Support) | Fax 1-510-740-3625 | info@ProMab.com | www.ProMab.com

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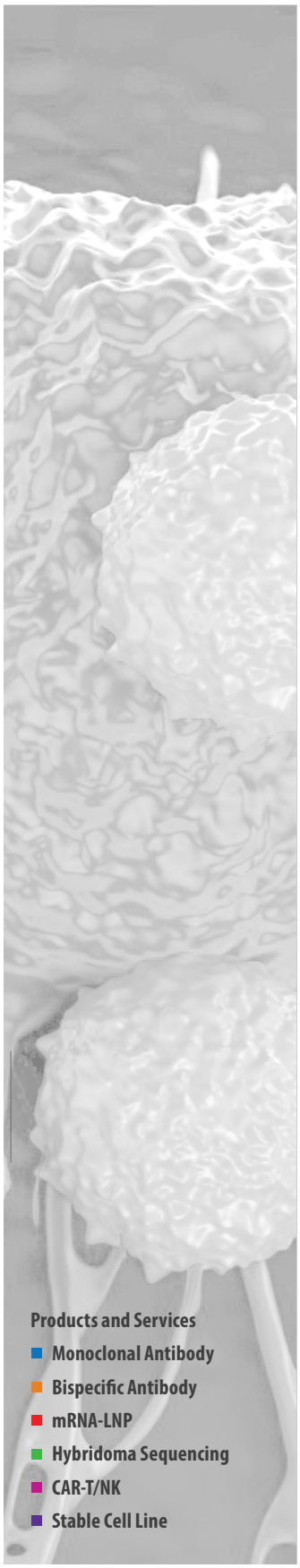

Products and Services

- Monoclonal Antibody
- Bispecific Antibody
- mRNA-LNP
- Hybridoma Sequencing
- CAR-T/NK
- Stable Cell Line

Storage

Product is delivered on blue ice. Store at 4°C for up to 3 months.

Application & Handling

Upon receiving product, briefly pulse spin before opening to ensure product is at bottom of container. It is important not to spin for too long as this may rupture mRNA-LNPs. Do not vortex. Work with mRNA-LNPs on ice and minimize the time that the product spends at room temperature. After handling the product during experiments, return immediately to ice. mRNA-LNP products should only be handled with certified RNase-free reagents and consumables. Use of filtered pipette tips is highly recommended.

Safety & Research Disclosure

All ProMab mRNA lipid nanoparticle products are for in vitro research use only. Products are not FDA approved for human use.

General Protocol

1. Prior to transfection: Plate 1ml of cells at a density of [1.0E6 cells/ml] in a single well of a 12-well culture plate. Ensure the cells you are using are viable and healthy. Try not to let your cells sit for longer than 5 minutes prior to transfection. Cell clumping at the time of transfection may reduce transfection efficiency. *Note: If cell clumping occurs, gently pipette your culture up & down to ensure you have a single cell suspension before transfecting.

2. Briefly pipette mRNA-LNP mix up & down to resuspend. Add 20-40ul of the mRNA-LNP product dropwise directly to your 1ml culture. Gently tilt plate back and forth to mix (not necessary if you are using cells which will be immediately placed back into a shaker). Place your transfected cells back into their original culture conditions.

3. Check cell expression by FACS or by using other detection methods at 24hr intervals after transfection. *Note: This is a generalized protocol for transfection using mammalian suspension culture cells. Transfection volume may be scaled up or down proportionately using the volumes given. HEK-293s cells were grown and transfected in FreeStyle™ F17 Expression Medium (Gibco, Cat#: A1383501), supplemented with GlutaMAX™ (Gibco, Cat#: 35050061), and Poloxamer 188 Non-ionic Surfactant (Gibco, Cat#: 24040032). T-cells were grown and transfected in a culture medium supplemented with 10% FBS (Omega Scientific, Cat#: FB-02). When transfecting cells using mRNA-LNPs, it is typically necessary for the cell culture medium to be supplemented with 10% FBS at the time of transfection. Without this supplement, transfection efficiency will drop significantly. For mRNA-LNP transfection of cells which cannot use FBS in the culture medium, please contact us at (510) 860-4615. Alternative transfection methods are available.

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Expression of mCherry-Luc in S293 Cells Transfected with PM-LNP-0023

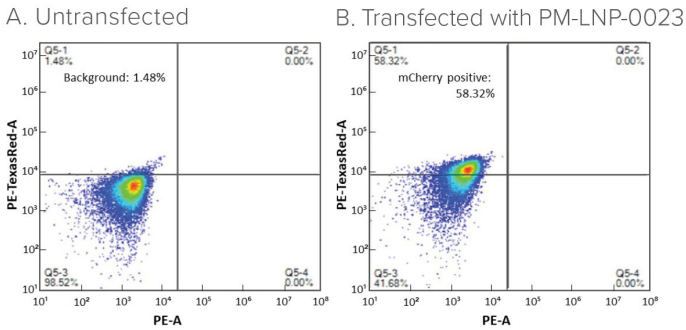

Figure 1. Flow Cytometry. PM-LNP-0023 nanoparticle-treated HEK293S cells express mCherry, indicated by endogenous fluorescence.

Photograph of mCherry-Luc Expressed in S293 Cells Transfected with PM-LNP-0023

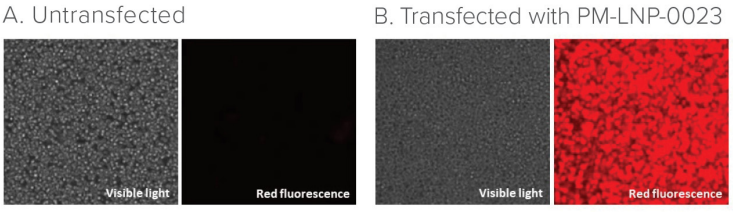

Figure 2. Fluorescent images of HEK293S cells 24 hours after treatment with PM-LNP-0023 nanoparticles.

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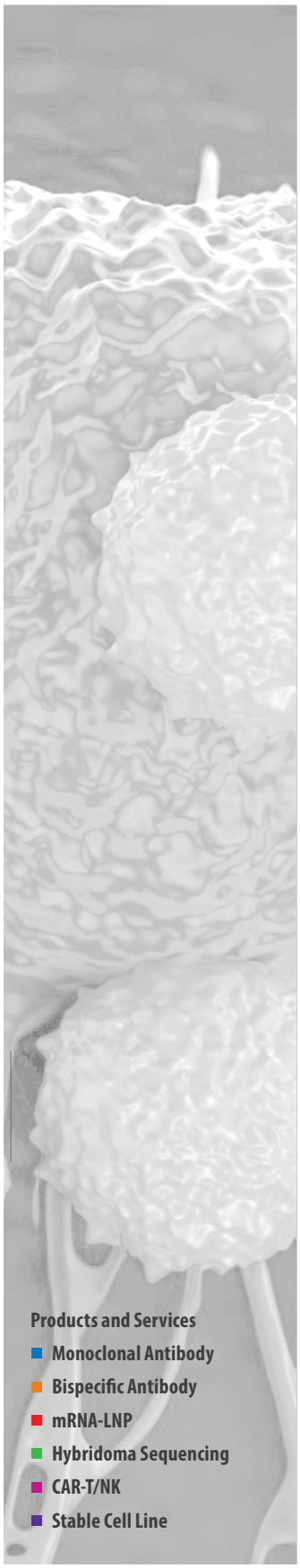

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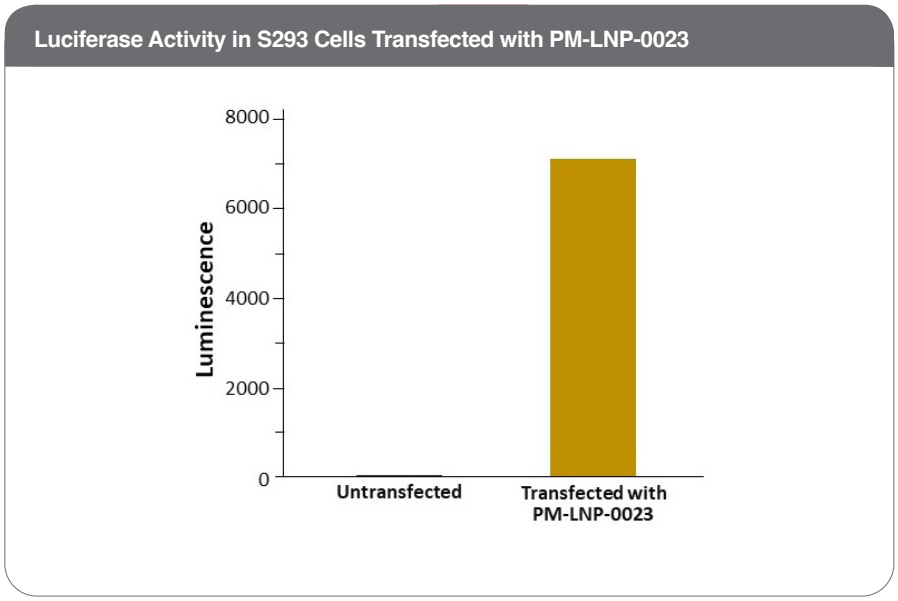

Figure 3. PM-LNP-0023 nanoparticle-treated HEK293S cells express luciferase, indicated by luminescence after exposure to luciferin.

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