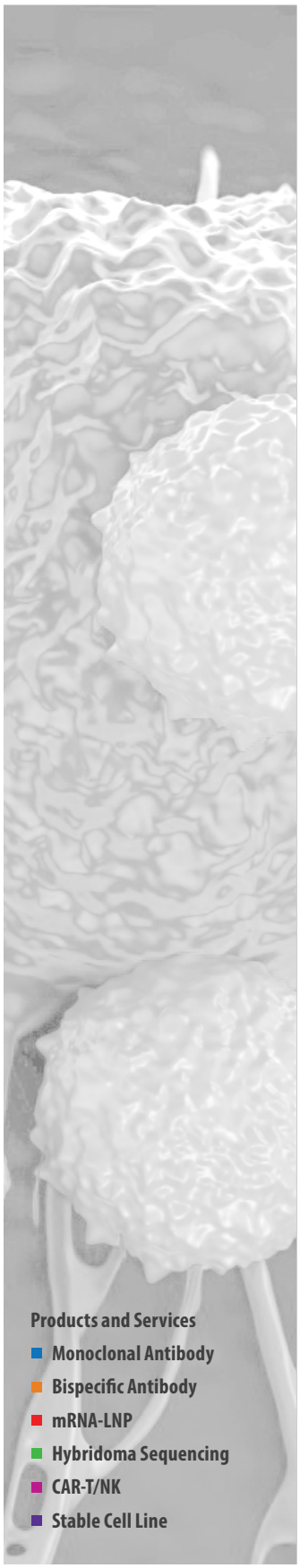
ProMab Biotechnologies, Inc.

eGFP mRNA-LNP

Ready-to-use lipid nanoparticles



Products and Services

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

Order Information

Catalog#	Size	GenPept No.
PM-LNP-0020	200uL	

Description

Green Fluorescent Protein (GFP) is a protein that fluoresces bright green when illuminated by light in the blue to ultraviolet range. EGFP is a GFP that produces enhanced green fluorescence and is widely used as a reporter gene in cellular and molecular biology. This product is designed as a tool for the delivery and expression of EGFP mRNA for research. The product leverages the lipid nanoparticle (LNP) technology platform for simple and efficient delivery of EGFP mRNA to a variety of mammalian cells in vitro and in vivo. The LNPs used are formulated with SM-102, DSPC, cholesterol and DMG-PEG2000 at an optimal molar concentration for a high rate of encapsulation and efficient mRNA delivery. The sequence of EGFP protein consists of 262 amino acids, and the GenPept accession number is

Composition

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

Translated Protein sequence

MVSKGEELFTGVVPILVELDGDVNGHKFSVSGEGEGDATYGKLTLKFICTTGKLPVPWPTLVT-
TLTYGVQCFSRYPDHMKQHDFFKSAMPEGYVQERTIFFKDDGNYKTRAEVKFEGDTLVN-
RIELKGIDFKEDGNILGHKLEYNYNSHNVYIMADKQKNGIKVNFKIRHNIEDGSVQLADHY-
QQNTPIGDGPVLLPDNHYLSTQSALSKDPNEKRDHMVLLEFVTAAGITLGMDELYK*

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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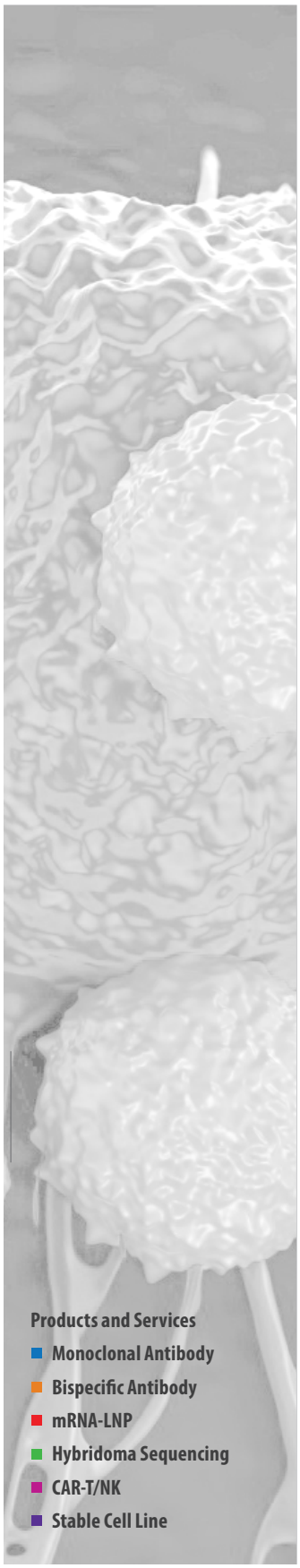

Storage

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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EGFP Expression in S293 Cells Transfected with PM-LNP-0020

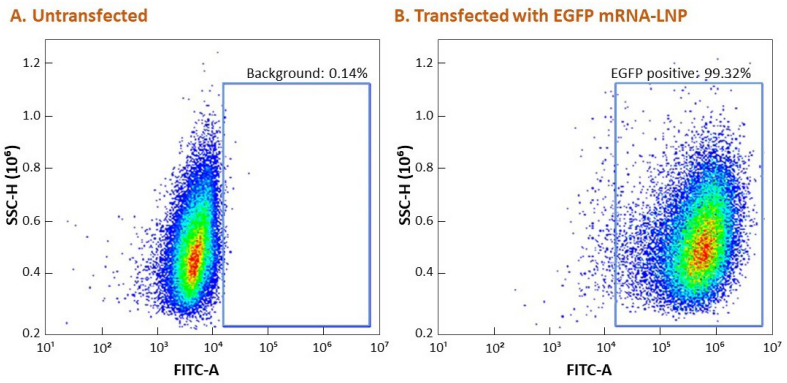

Figure 1. Quantification of GFP-expressing S293 cells by FACS 24 hours post transfection without or with eGFP mRNA-LNP (Cat.# PM-LNP-0020).

EGFP Expression in Human T Cells Transfected with PM-LNP-0020

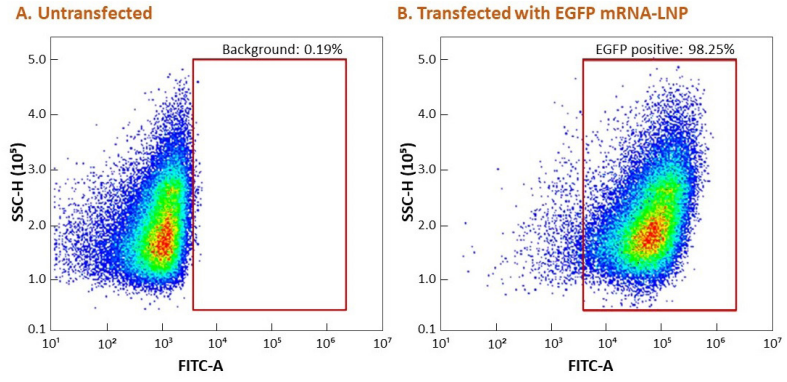

Figure 2. Quantification of GFP-expressing human T cells by FACS 24 hours post transfection without or with eGFP mRNA-LNP (Cat.# PM-LNP-0020).

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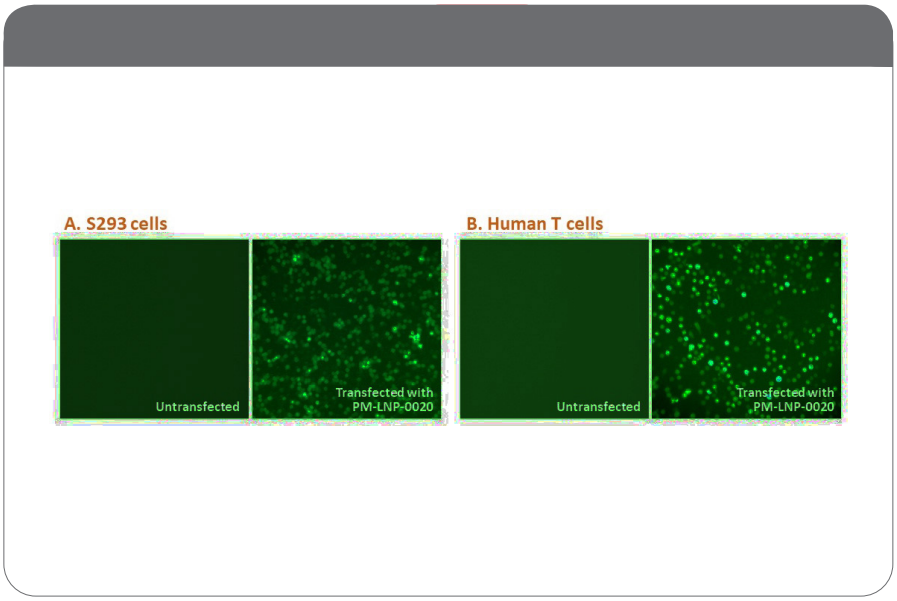

Figure 3. Fluorescent images of GFP-expressing S293 cells and human T cells 24 hours post transfection without or with eGFP mRNA-LNP (Cat. # PM-LNP-0020).

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