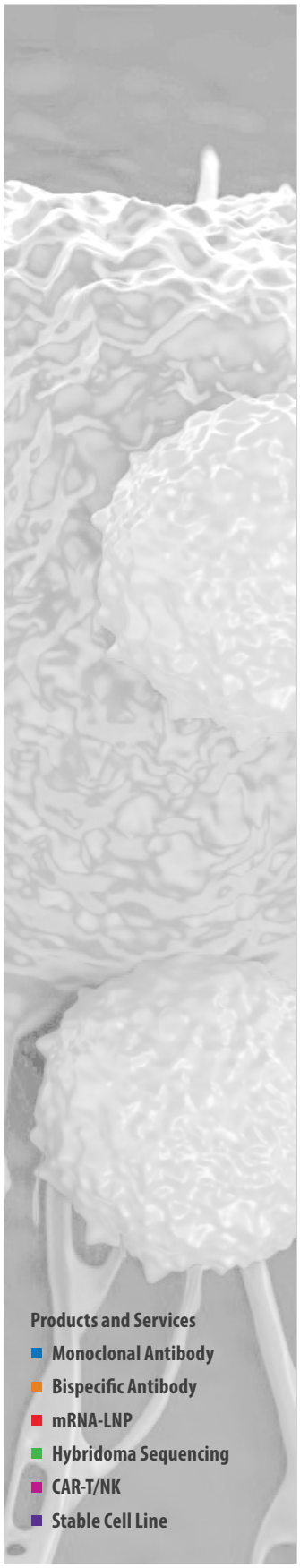
ProMab Biotechnologies, Inc.

# Dre-HA mRNA-LNP

## Ready-to-use lipid nanoparticles




### Order Information

Catalog# PM-LNP-0145 Size 200uL

### Description

Dre is a recombinase used for high-efficiency site-specific recombination at rox sites in mammalian cells. Dre/rox operates independently of Cre/loxP or Flp/FRT, allowing for dual-recombinase studies. Dre is comprised of 342 amino acids and its UniProt accession number is Q5QBE8. ProMab's PM-LNP-0145 nanoparticles contain an mRNA encoding Dre, the hemagglutinin (HA) tag and a nuclear localization signal (NLS); the NLS ensures efficient nuclear import, the HA tag allows for easy detection or purification of the protein, and the Dre enzyme performs genomic cleavage. The nanoparticles 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 in vitro and in vivo.

### Composition

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

### Storage

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

### Handling

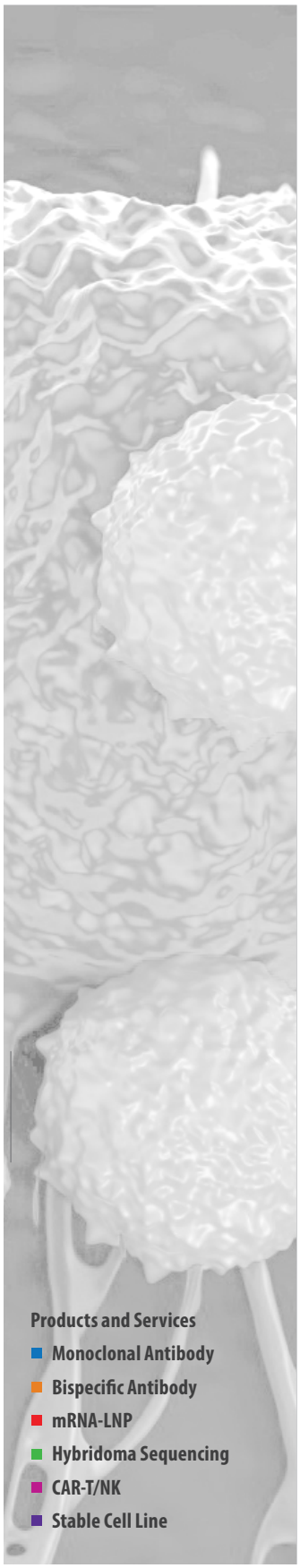
Upon receipt, centrifuge the vial for a few seconds to ensure the contents are located at the bottom of the vial. Vortex mixing or prolonged centrifugation may rupture the nanoparticles. Store the vial of nanoparticles in the refrigerator and keep on ice when in use. Do not allow the nanoparticles to warm to room temperature. mRNA-LNP suspensions should only be handled with certified RNase-free reagents and consumables. The use of filtered pipette tips is highly recommended.

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

ProMab Biotechnologies, Inc.

# Dre-HA mRNA-LNP

## Ready-to-use lipid nanoparticles



**Products and Services**

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

## Safety & Research Disclosure

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

## Protocol for Transfecting Suspension Cells

Suspend 0.5 - 1 million cells in 1 ml of culture medium. Ensure the cells are healthy and well-dispersed, as cell clumping may reduce transfection efficiency. Disperse the nanoparticle suspension by gently pipetting up and down several times, then slowly add 20-40 ul to the cells, dropwise. Gently mix the cells and incubate them overnight in a culture incubator. The next day, and every day thereafter, check the culture for expression of the protein encoded by the mRNA-LNP. Cell-bound proteins can be detected by flow cytometry or western blotting using the transfected cells, whereas secreted proteins can be detected by ELISA, western blotting or flow cytometry (on a target cell line) using the medium collected from the transfected cells.

## Dre Expression in HEK293S Cells Treated with PM-LNP-0145

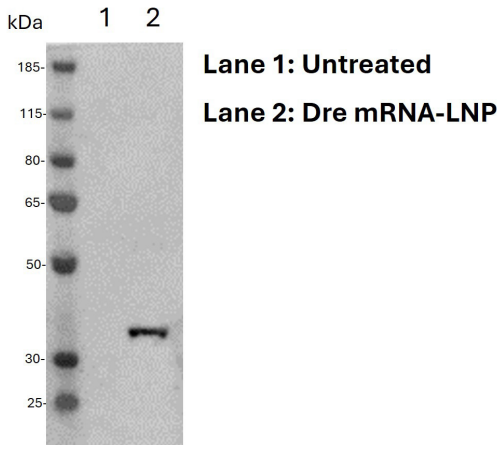



Figure 1. Western Blotting. PM-LNP-0145 nanoparticle-treated HEK293S cells express HA-tagged Dre, detected with an anti-HA antibody.

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