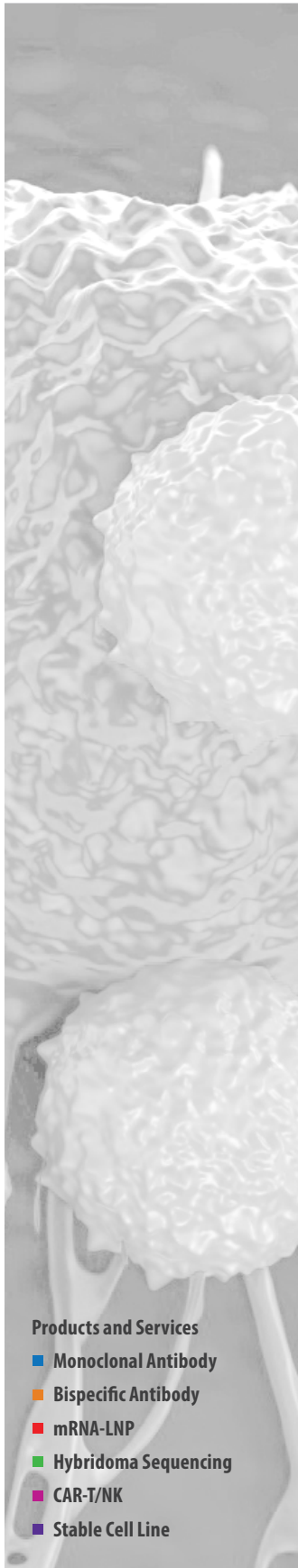


## Cre-FLAG mRNA-LNP

### Ready-to-use lipid nanoparticles



#### Order Information

Catalog# PM-LNP-0146                      Size 200uL

#### Description

Cre is a recombinase used for high-efficiency site-specific recombination at loxP sites in mammalian cells. Cre/loxP operates independently of Dre/rox or Flp/FRT, allowing for dual-recombinase studies. Cre is comprised of 343 amino acids and its UniProt accession number is P06956. ProMab's PM-LNP-0146 nanoparticles contain an mRNA encoding Cre, the FLAG tag and a nuclear localization signal (NLS); the NLS ensures efficient nuclear import, the FLAG tag allows for easy detection or purification of the protein, and the Cre 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.

## Cre-FLAG mRNA-LNP

Ready-to-use lipid nanoparticles

### 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.

### Cre Expression in HEK293S Cells Treated with PM-LNP-0146

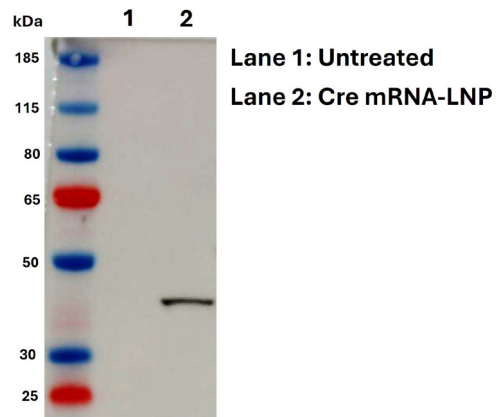


Figure 1. Western Blotting. PM-LNP-0146 nanoparticle-treated HEK293S cells express FLAG-tagged Cre, detected with an anti-FLAG antibody.

#### Products and Services

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