

CCL20-TF 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#	PM-LNP-0135	Size	200uL
----------	-------------	------	-------

Description

CCL20, otherwise known as MIP-3a (macrophage inflammatory protein 3 alpha) is a chemokine which directs the migration of T cells (primarily Th17 and Treg) bearing the chemokine receptor CCR6. The CCL20-CCR6 axis is important for the generation and function of mucosal lymphoid follicles which monitor antigens entering the body through the mucosa. CCL20 may play a role in metastasis of CCR6+ cancers (primarily gastrointestinal cancers) to the liver, which produces high levels of CCL20. CCL20 is comprised of 96 amino acids and its GenPept accession number is NP_004582. ProMab's PM-LNP-0135 nanoparticles contain an mRNA encoding CCL20 and a C-terminal TF tag (15 amino acids) protected by a lipid shell. 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 are 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.

CCL20-TF 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.

CCL20 Secretion from HEK293S Cells Treated with PM-LNP-0135

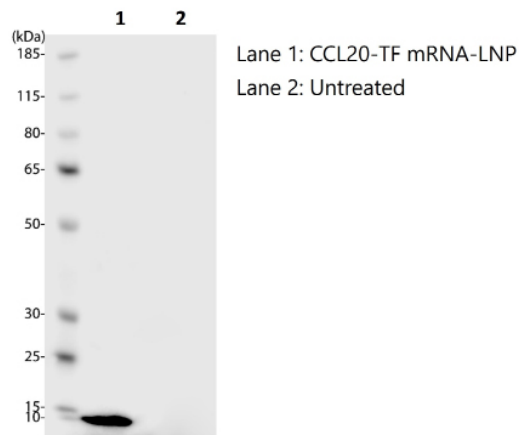


Figure 1. Western blot. Medium collected from PM-LNP-0135 nanoparticle-treated HEK293S cells contains TF-tagged CCL20, detected with an anti-TF antibody.

Products and Services

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

CCL20-TF mRNA-LNP

Ready-to-use lipid nanoparticles

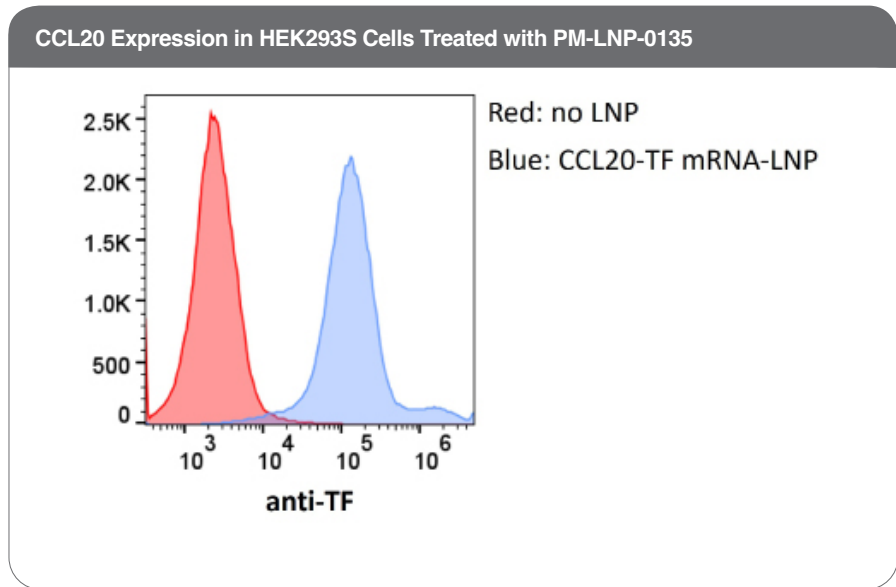


Figure 2. Flow Cytometry. PM-LNP-0135 nanoparticle-treated HEK293S cells express TF-tagged CCL20, detected with an anti-TF antibody.