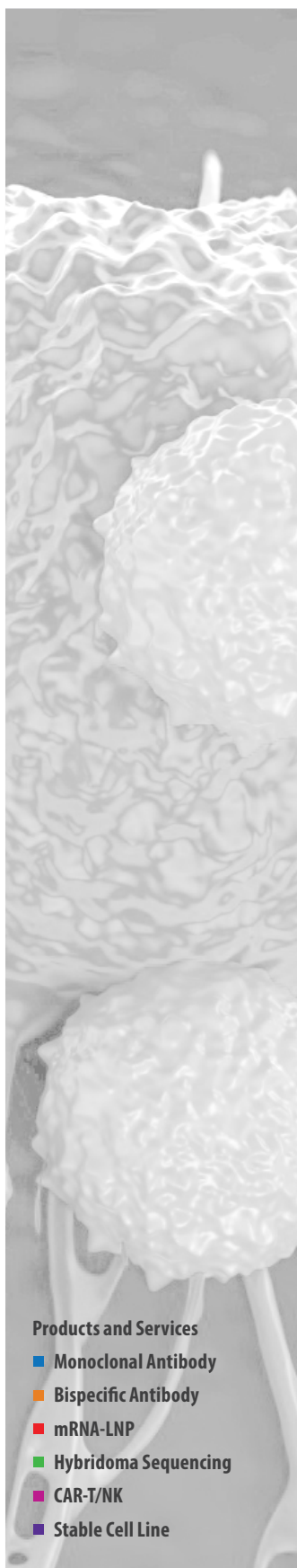


CCL5-TF mRNA-LNP

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-0133	Size	200uL
----------	-------------	------	-------

Description

CCL5 is a chemokine produced by macrophages, activated T cells, epithelial cells and fibroblasts at sites of inflammation. CCL5 recruits T cells and endothelial precursor cells bearing the chemokine receptor CCR1, CCR3 or CCR5. In addition to its role as a chemoattractant, CCL5 signals through the PI3K/Akt pathway to upregulate matrix metalloproteinases, which remodel the extracellular matrix, and inactivate the cell cycle protein cyclin D. CCL5 is implicated in numerous inflammatory diseases as well as cancer, atherosclerosis, asthma and COVID-19. CCL5 is comprised of 91 amino acids and its GenPept accession number is NP_002976. ProMab's PM-LNP-0133 nanoparticles contain an mRNA encoding CCL5 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.

CCL5-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.

CCL5 Secretion from HEK293S Cells Treated with PM-LNP-0133

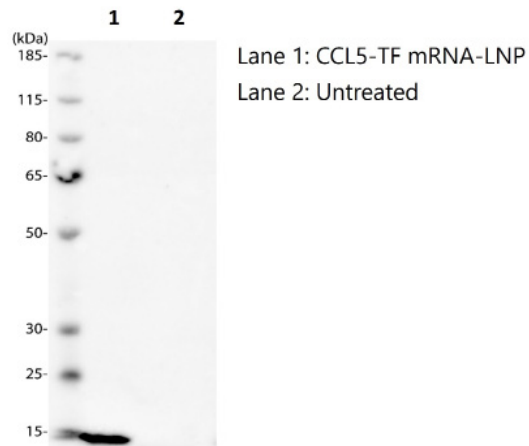


Figure 1. Western blot. Medium collected from PM-LNP-0133 nanoparticle-treated HEK293S cells contains TF-tagged CCL5, detected with an anti-TF antibody.

Products and Services

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

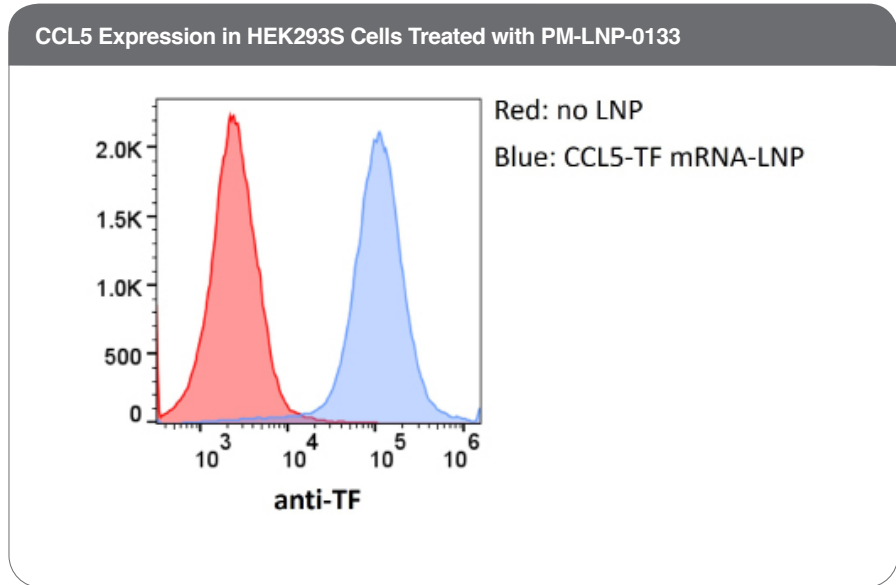
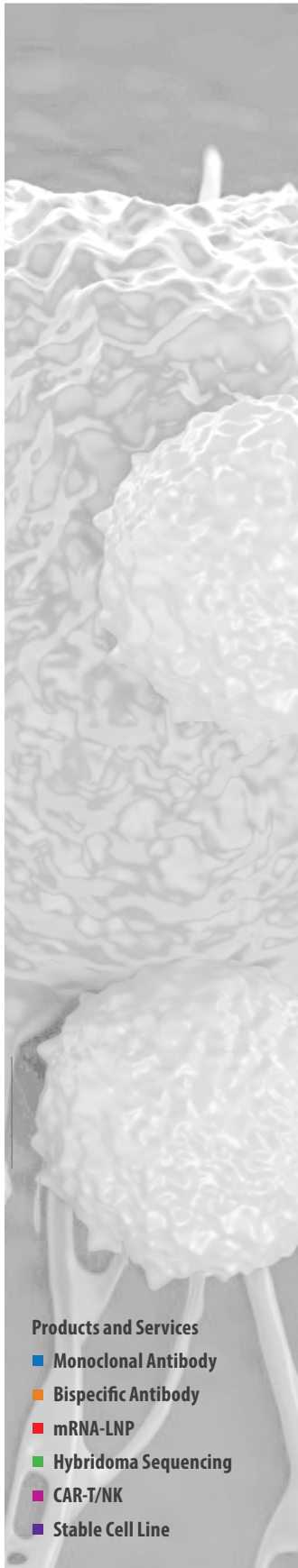


Figure 2. Flow Cytometry. PM-LNP-0133 nanoparticle-treated HEK293S cells express TF-tagged CCL5, detected with an anti-TF antibody.