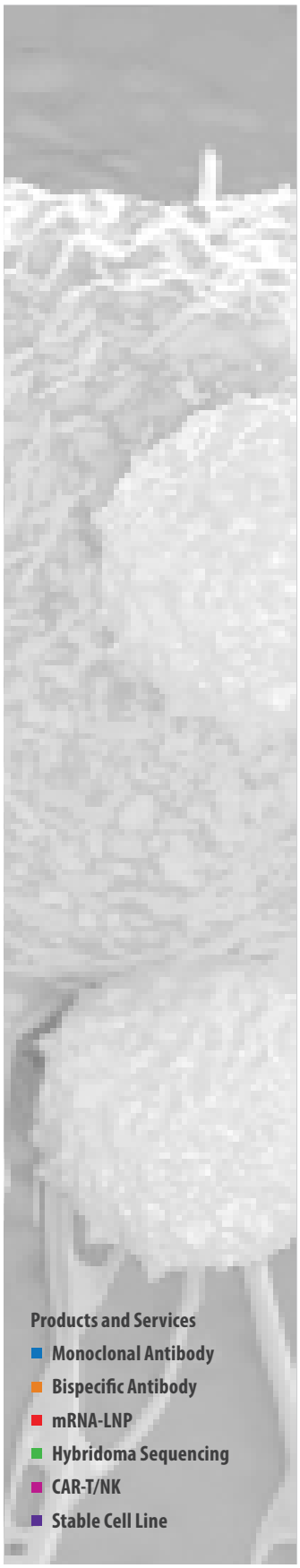
ProMab Biotechnologies, Inc.

mouse IL-12 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-0137 Size 200uL

Description

IL-12 (interleukin 12) is a cytokine produced by dendritic cells, macrophages, neutrophils, and activated human B cells in response to antigenic stimulation. Consisting of a unique p35 alpha subunit (encoded by the IL12A gene) and a p40 beta subunit (encoded by the IL12B gene) shared with other cytokines, IL-12 is primarily responsible for the induction and enhancement of cell-mediated immunity. IL-12 also promotes Th1 cell differentiation, increases T cell and NK cell cytotoxicity, and inhibits immunosuppressive cells. In preclinical studies, IL-12 demonstrates significant antitumor effects against a range of malignancies but often produces severe toxicities. The primary accession numbers for mouse IL-12 p35 (215 amino acids) and IL-12 p40 (335 amino acids) are P43431 and P43432, respectively. ProMab's PM-LNP-00137 nanoparticles contain an mRNA encoding covalently linked mouse IL-12 p35 and p40 proteins. 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

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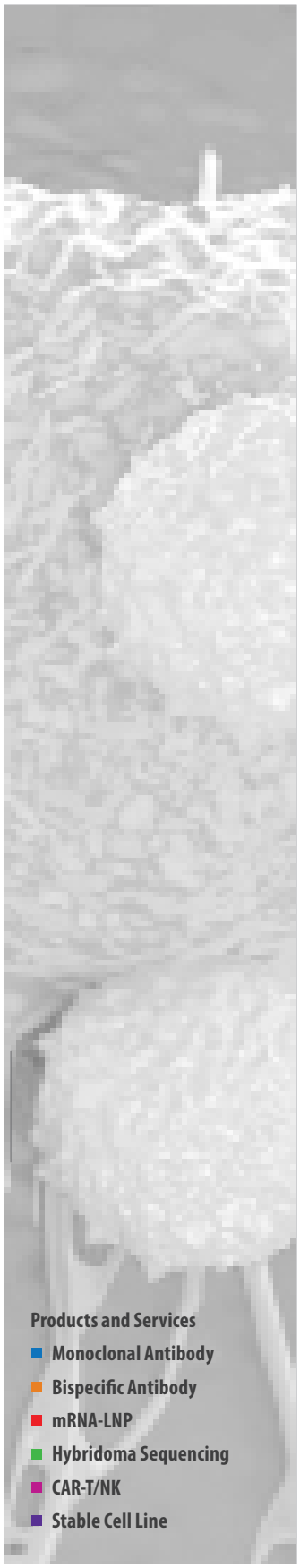

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Safety & Research Disclosure

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.

Mouse IL-12 Secretion from HEK293S Cells Treated with PM-LNP-0137

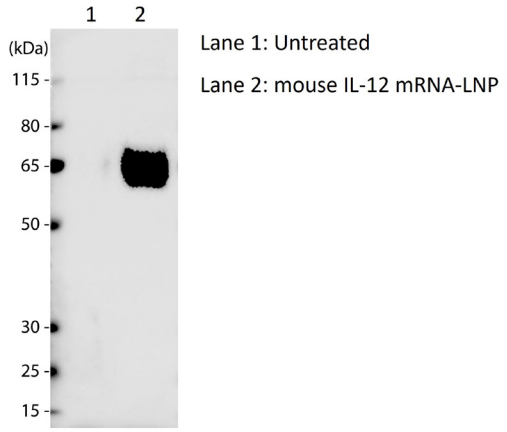

Figure 1. Western blot. Medium collected from PM-LNP-0137 nanoparticle-treated HEK293S cells contains mouse IL-12, detected with an anti-mouse IL-12 antibody.

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