

IL-15-IL15Ralpha mRNA-LNP

Ready-to-use lipid nanoparticles

Order Information

Catalog#	Size	GenPept No.
PM-LNP-0108	200uL	

Description

Interleukin 15 (IL-15), encoded by the IL-15 gene, is a member of the family of four alpha-helical bundles of cytokines. The primary mechanism of action of IL-15 appears to be juxtacrine signaling determined by cell-cell contacts. This role also includes endocrine and reverse signaling. IL-15 was initially characterized as a soluble molecule, but it was later found that the major form of IL-15 protein is the membrane-bound form, which can be directly bound to the cell membrane or presented by the IL-15R α receptor. The IL-15 receptor consists of three subunits: IL-15R α , CD122, and CD132. CD122 and CD132 are shared with the IL-2 receptor, and there is actually an additional subunit (CD25). The shared subunits contain cytoplasmic motifs required for signal transduction that underlie many of the overlapping biological

Composition

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

Translated Protein sequence

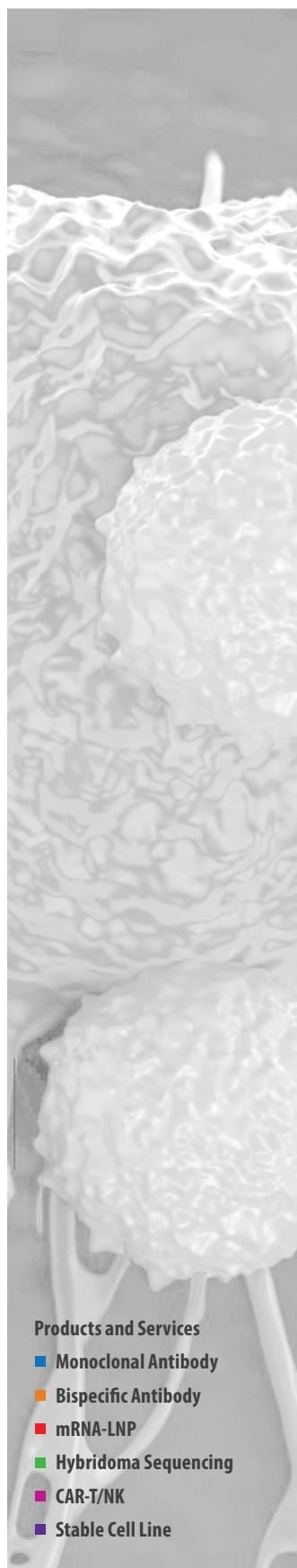
Available up request

Products and Services

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

IL-15-IL15Ralpha mRNA-LNP

Ready-to-use lipid nanoparticles



Products and Services

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

Storage

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

Application & Handling

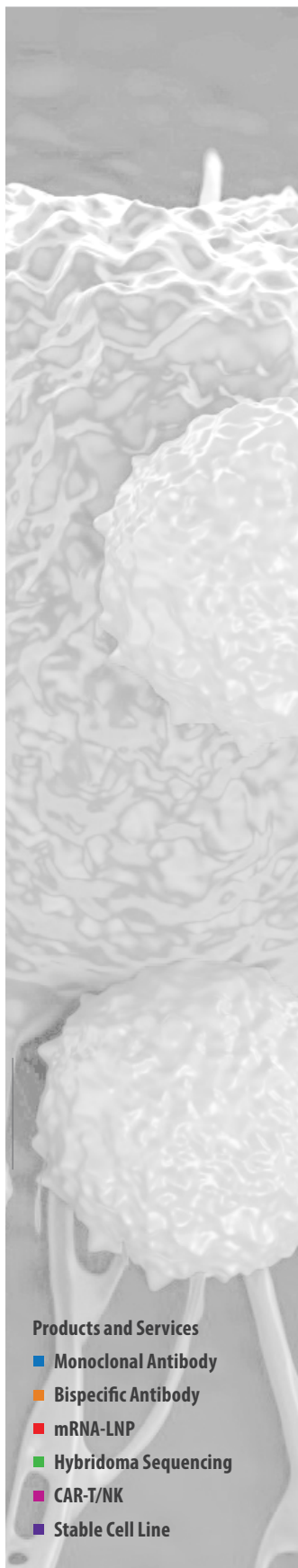
Upon receiving product, briefly pulse spin before opening to ensure product is at bottom of container. It is important not to spin for too long as this may rupture mRNA-LNPs. Do not vortex. Work with mRNA-LNPs on ice and minimize the time that the product spends at room temperature. After handling the product during experiments, return immediately to ice. mRNA-LNP products should only be handled with certified RNase-free reagents and consumables. Use of filtered pipette tips is highly recommended.

Safety & Research Disclosure

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

General Protocol

1. Prior to transfection: Plate 1ml of cells at a density of [1.0E6 cells/ml] in a single well of a 12-well culture plate. Ensure the cells you are using are viable and healthy. Try not to let your cells sit for longer than 5 minutes prior to transfection. Cell clumping at the time of transfection may reduce transfection efficiency. *Note: If cell clumping occurs, gently pipette your culture up & down to ensure you have a single cell suspension before transfecting.
2. Briefly pipette mRNA-LNP mix up & down to resuspend. Add 20-40ul of the mRNA-LNP product dropwise directly to your 1ml culture. Gently tilt plate back and forth to mix (not necessary if you are using cells which will be immediately placed back into a shaker). Place your transfected cells back into their original culture conditions.
3. Check cell expression by FACS or by using other detection methods at 24hr intervals after transfection. *Note: This is a generalized protocol for transfection using mammalian suspension culture cells. Transfection volume may be scaled up or down proportionately using the volumes given. HEK-293s cells were grown and transfected in FreeStyle™ F17 Expression Medium (Gibco, Cat#: A1383501), supplemented with GlutaMAX™ (Gibco, Cat#: 35050061), and Poloxamer 188 Non-ionic Surfactant (Gibco, Cat#: 24040032). T-cells were grown and transfected in a culture medium supplemented with 10% FBS (Omega Scientific, Cat#: FB-02). When transfecting cells using mRNA-LNPs, it is typically necessary for the cell culture medium to be supplemented with 10% FBS at the time of transfection. Without this supplement, transfection efficiency will drop significantly. For mRNA-LNP transfection of cells which cannot use FBS in the culture medium, please contact us at (510) 860-4615. Alternative transfection methods are available.



Expression of IL-15-IL15RA in S293 Cells Transfected with PM-LNP-0108

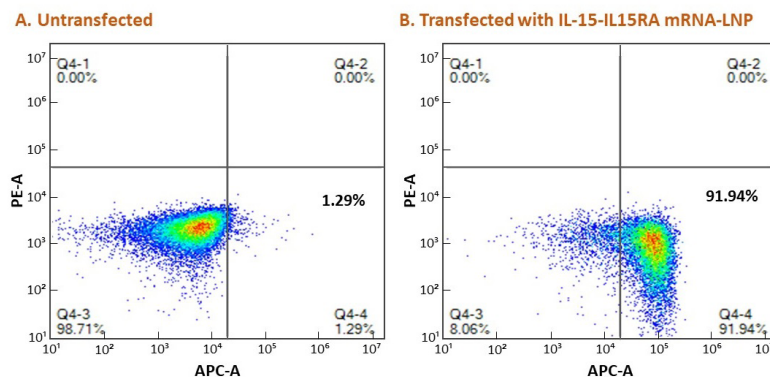


Figure 1. Flow Cytometry. PM-LNP-0108 nanoparticle-treated HEK293S cells express IL-15 protein, detected with a labeled anti-IL-15 antibody (R&D Systems).