

# GenVoy-ILM™

Non-viral LNP Delivery  
for RNA

An exclusive ionizable lipid mix for rapid, easy production of RNA-Lipid Nanoparticles using the NanoAssemblr® platform

## About Lipid Nanoparticles

LNPs are the most advanced technology for encapsulating and delivering nucleic acids

**LNPs have been shown to offer**

- High nucleic acid encapsulation efficiency
- High transfection efficiency
- Low toxicity in primary cells and in vivo

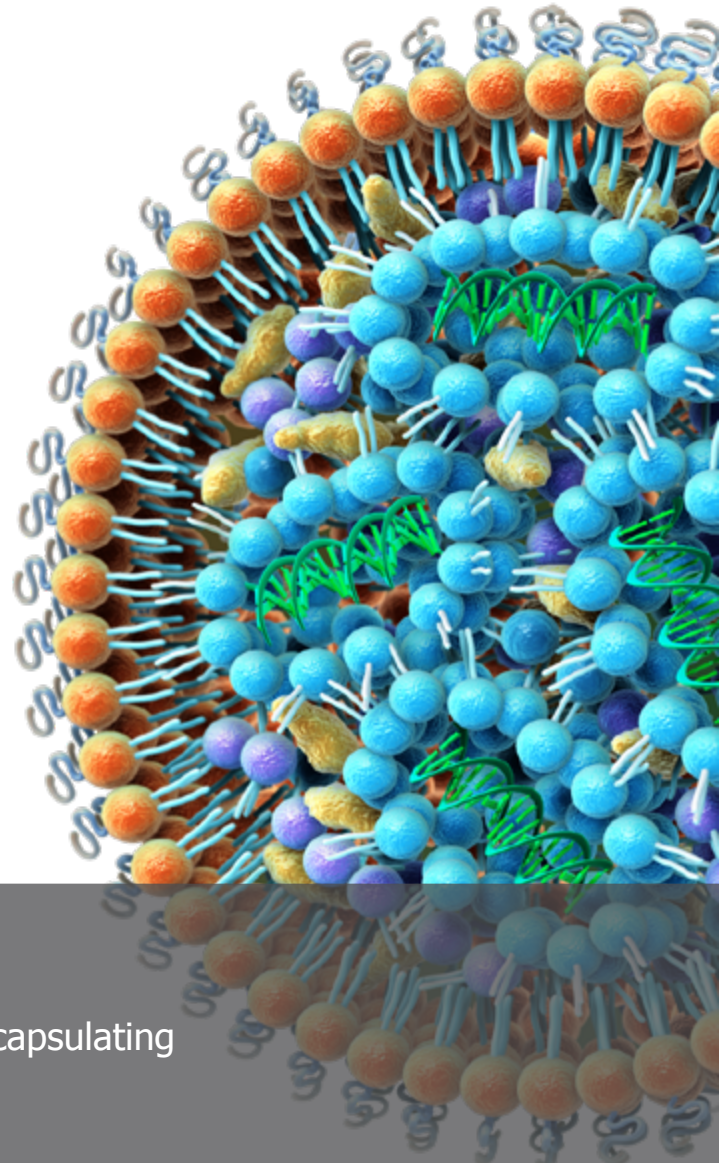
## About GenVoy-ILM

**GenVoy-ILM is pre-formulated with:**

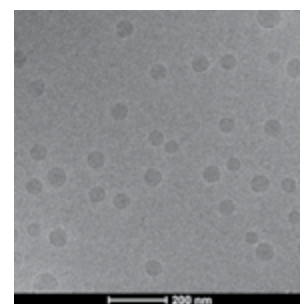
- PNI Ionizable Lipid
- DSPC (helper lipid)
- Cholesterol
- PNI Stabilizer
- Dye for visualization (optional)

**Deliver RNA in vitro and in vivo for preclinical R&D of**

- RNAi medicine
- Gene editing e.g. CRISPR/Cas9
- Protein/enzyme replacement therapy
- mRNA vaccines



# Both The Chemistry And The Process Affect The Outcome



**GenVoy-ILM™**

NanoAssemblr Process

Homogeneous LNPs

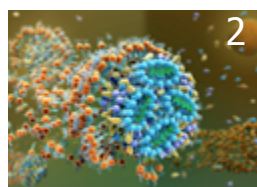
LNPs made with the NanoAssemblr platform exhibit a unique homogeneous core structure with exceptionally consistent size within and between batches, which has been shown to be more potent than particles made by other methods. For more details, visit:

[precisionnanosystems.com/lnp-performance](https://precisionnanosystems.com/lnp-performance)

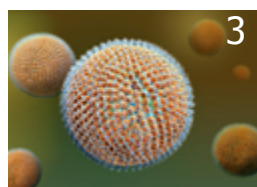
## How it works



1 Ionizable cationic lipids are pH sensitive. During formulation at low pH lipids and nucleic acids are attracted by electrostatics to form the core of LNPs, ensuring high encapsulation



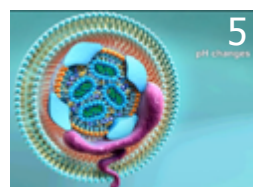
2 Helper lipids, cholesterol and stabilizers form around the core to protect it



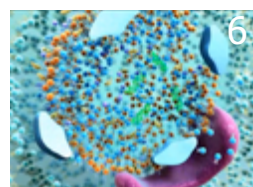
3 Once formed, LNPs are neutral at physiological pH which eliminates a main source of toxicity present in other materials used in gene delivery systems



4 LNPs mimic low density lipoproteins (LDL) and are then taken up by most cell types through receptor-mediated endocytosis



5 Once in the endosome, ionizable lipids respond to low pH and become cationic



6 They then interact with anionic lipids in the endosome membrane and disrupt the endosomal bilayer, causing the release of the nucleic acid cargo into the cytoplasm

## Learn More

[precisionnanosystems.com/genvoy-ilm](https://precisionnanosystems.com/genvoy-ilm)

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## Ordering Information

GenVoy-ILM	2 mL	NWW0041
GenVoy-ILM	5 mL	NWW0042
GenVoy-ILM w/ dye (644/665 nm ex/em)	2 mL	NWW0039
GenVoy-ILM w/ dye (644/665 nm ex/em)	5 mL	NWW0040
PNI Formulation Buffer	20 mL	NWW0043
NanoAssemblr Benchtop Instrument with 50 Cartridges	Instrument Bundle	NIT0055

Document ID: genvoy-ilm-BR-0918

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