

Description

Ready-to-use stabilized **NanOZ-LNP/saRNA(OVA)**.

Concentration: 0.1 mg/mL saRNA in LNPs

Buffer: PBS, 10 % sucrose

RNA Cat. number unmodified OVA saRNA

Lipid Nanoparticles (LNPs) represent the most effective and safe delivery systems for the translational success of nucleic acid drugs. **NanOZ-LNP/saRNA** is designed to not only protect saRNA from degradation, but also facilitate intracellular uptake and thus potentiate its efficacy. LNPs are lipidic spherical vesicles formed by a combination of four main compounds: ionizable cationic lipid, helper phospholipid, cholesterol and pegylated lipid, each having distinct functions (**Fig.1**). **LNP/saRNA** systems self-assemble via electrostatic interactions between negatively charged saRNA and ionizable cationic lipids. Our delivery systems are produced through microfluidic technology resulting in monodisperse **NanOZ-LNP/saRNA** with narrow size distribution and high encapsulation efficiency (>80%). OZB developed optimized **NanOZ-LNP/saRNA(OVA)** to improve stability and performance, specifically for nucleic acid transfection in multiple cell types. Currently, LNPs hold great potential in diverse pharmaceutical applications including oncology, immunotherapy, regenerative medicine or chronic diseases treatment.

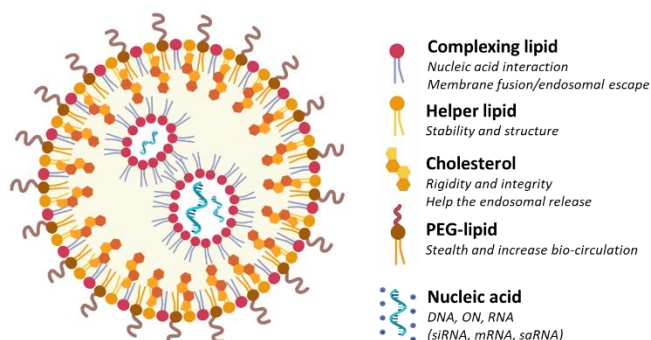


Fig.1. Schematic representation of LNPs-saRNA

Applications

OVA saRNAs: OVA saRNAs have been designed to produce high expression level of Ova protein with enhanced length of duration. saRNAs are produced by *in vitro* transcription, stabilized at the 5' end by modified nucleotides capping (Cap1) and contain a poly(A) tail at the 3' end. Sequences have been optimized to yield improved stability and performance.

NanOZ-LNP/saRNA(OVA): LNP-saRNAs (OVA) have been designed to produce high expression level of Ovalbumin protein which is commonly used antigen for immunization and biochemical studies and an established model allergen for airway hyper-responsiveness.

Quality Controls

Items	Specification	Standard QC	Superior Grade QC*
Identity	Size	✓	✓
	Charge	✓	✓
Content	Encapsulation efficiency	✓	✓
	RNA concentration	✓	✓
Safety	Sterility	✓	✓
	Endotoxin		✓
	Mycoplasma detection		✓
Characterization	Lipid content		✓

* Contact us to get a quote.

Certificate of analysis on demand.

Use, handling and storage

For Research Use Only. Not for use in humans. Not for use in diagnostic or therapeutic purposes.

Long term storage (6 months): -80°C

Short term storage (2 months): +4°C

We recommend minimizing freeze-thaw cycles to preserve LNPs integrity.

Kit contents

LNPSA30500: 0.5 mL (2*250 µL) of **LNP/saRNA**, (100 µg/mL of unmodified OVA saRNA)

LNPSA31000: 1 mL (4*250 µL) of **LNP/saRNA**, (100 µg/mL of unmodified OVA saRNA)

LNPSA35000: 5 mL (20*250 µL) of **LNP/saRNA**, (100 µg/mL of unmodified OVA saRNA)

Related Products

Ref	Description
#LNPSA1	NanOZ-LNP saRNA (GFP)
#LNPSA2	NanOZ-LNP saRNA (Luc)

Custom LNPs & saRNAs are also available!

Purchaser Notification | Conditions of Sale

This product is sold in accordance with our general conditions of sale that you can find on our website: <https://ozbiosciences.com/content/3-terms-and-conditions>.