

α1-proteinase inhibitor In Vitro Transcribed mRNA-LNP

Catalog Number:SG-MRNA-LNP-1873

DESCRIPTION	
Product Name	α1-proteinase inhibitor In Vitro Transcribed mRNA-LNP
Gene Name	Serpin
Source	The ORF of α1-proteinase inhibitor was cloned in our IVT vector and mRNA was prepared through in vitro transcription and purification. The purified mRNA was further encapsulated with LNP(DSPC:Cholesterol:DMG-PEG:SM102).
Alternative names	α1-proteinase inhibitor
SPECIFICATIONS	
Cap	m7GpppN
5'-UTR	5' -untranslated region derived from human alpha-globin RNA with an optimized Kozak sequence
ORF	α1-proteinase inhibitor
3'-UTR	3' UTR comprising two sequence elements derived from the aminoterminal enhancer of split (AES) mRNA and the mitochondrial encoded 12S ribosomal RNA
Poly(A) Tail	A 110-nucleotide poly(A)-tail consisting of a stretch of 30 adenosine residues, followed by a 10-nucleotide linker sequence and another 70 adenosine residues.
Modifications	N1-methyl-pseudouridine
Neutral Lipid	1,2-distearoyl-sn-glycero-3-phosphocholine (DSPC)
Cholesterol	Cholesterol
Ionizable Lipid	1,2-dimyristoyl-rac-glycero-3-methoxypolyethylene glycol-2000 (PEG2000-DMG)
PEG-lipid	Heptadecan-9-yl 8-((2-hydroxyethyl)(8-(nonyloxy)-8-oxooctyl)amino)octanoate)(SM-102)
Storage	-20 °C
Buffer	PBS, pH7.4
Cryoprotectant	Trehalose
BACKGROUND	
Gene Accession	
Gene Alias	α1-proteinase inhibitor

body of the protein and directs binding to the target protease. The protease cleaves the serpin at the reactive site, establishing a covalent linkage between the carboxyl group of the serpin reactive site and the serine hydroxyl of the protease. The resulting inactive serpin-protease complex is highly stable.

Background

Alpha-1 proteinase inhibitor is a serine protease inhibitor (Serpin). Its primary mechanism is inhibiting the action of the serine protease called elastase (also plasmin and thrombin) in the lungs. The reactive center loop (RCL) of alpha-1 proteinase inhibitor extends out from the