

Trypsin In Vitro Transcribed mRNA-LNP

Catalog Number:SG-MRNA-LNP-1914

DESCRIPTION	
Product Name	Trypsin In Vitro Transcribed mRNA-LNP
Gene Name	Trypsin
Source	The ORF of Trypsin 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	Trypsin
SPECIFICATIONS	
Cap	m7GpppN
5'-UTR	5' -untranslated region derived from human alpha-globin RNA with an optimized Kozak sequence
ORF	Trypsin
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	Trypsin

carboxyl side of the amino acids lysine or arginine. Trypsin contains a nucleophilic residue Ser in the enzyme active site which attacks the carbonyl moiety of the substrate peptide bond to form an acyl-enzyme intermediate 1. This nucleophilic attack is facilitated by the catalytic triad consisting of histidine-57, aspartate-102, and serine-195. Trypsin also contains an oxyanion hole that stabilizes the charge negative charge on the carbonyl oxygen atom formed from the cleavage of peptide bonds.

Background

Trypsin is a serine protease that plays an essential role in protein hydrolysis and absorption in mammals. When converted from its zymogen trypsinogen, trypsin is available as an active peptide hydrolase (EC 3.4.21.4) form to cleave peptide chains, mainly at the