

Lactase In Vitro Transcribed mRNA-LNP

Catalog Number:SG-MRNA-LNP-1909

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

the body. Basically, tilactase acts by replacing the missing lactase in the body and allows avoidance of the reach of lactose to the small intestine and the normal bacteria and thus, preventing the symptoms of the lactose intolerance. Once tilactase has metabolized the lactose, the metabolism products are reabsorbed by the normal process of digestion.

Background

Tilactase is a beta-D-galactosidase obtained from *Aspergillus oryzae*. Lactose is the primary disaccharide found in dairy products. Tilactase is a type of lactase which is the enzyme that is in charge of the breakdown of lactose to glucose and galactose which can be used by