

## Enfuvirtide In Vitro Transcribed mRNA-LNP

Catalog Number:SG-MRNA-LNP-1902

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

of the viral envelope glycoprotein and prevents the conformational changes required for the fusion of viral and cellular membranes. By disrupting the HIV-1 molecular machinery during its final stage of fusion with the target cell, enfuvirtide limits the spread of further infection.

**Background**

Enfuvirtide is a 36 amino acid biomimetic peptide that is structurally similar to the HIV proteins that are responsible for the fusion of the virus to cell membranes and subsequent intracellular uptake. Enfuvirtide binds to the first heptad-repeat (HR1) in the gp41 subunit