

## Cre In Vitro Transcribed mRNA-LNP

Catalog Number:MRNA-TG-026

DESCRIPTION	
Product Name	Cre In Vitro Transcribed mRNA-LNP
Gene Name	Cre
Source	In vitro transcribed mRNA encapsulated with LNP
Alternative names	
SPECIFICATIONS	
Cap	Cap 1
5'-UTR	5' -untranslated region derived from human alpha-globin RNA with an optimized Kozak sequence
ORF	Cre
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	

depend on the location and relative orientation of the loxP sites. Two DNA species containing single loxP sites will be fused. DNA between directly repeated loxP sites will be excised in circular form while DNA between opposing loxP sites will be inverted with respect to external sequences.

#### Background

Cre Recombinase is a Type I topoisomerase from bacteriophage P1 that catalyzes the site-specific recombination of DNA between loxP sites. The enzyme requires no energy cofactors and Cre-mediated recombination quickly reaches equilibrium between substrate and reaction products. The loxP recognition element is a 34 base pair (bp) sequence comprised of two 13 bp inverted repeats flanking an 8 bp spacer region which confers directionality. Recombination products