

## Interleukin 2 In Vitro Transcribed mRNA-LNP

Catalog Number:SG-MRNA-LNP-1881

DESCRIPTION	
Product Name	Interleukin 2 In Vitro Transcribed mRNA-LNP
Gene Name	IL-2
Source	The ORF of Interleukin 2 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	Interleukin 2
SPECIFICATIONS	
Cap	m7GpppN
5'-UTR	5' -untranslated region derived from human alpha-globin RNA with an optimized Kozak sequence
ORF	Interleukin 2
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	Interleukin 2

events led to the creation of an activated receptor complex, to which various cytoplasmic signaling molecules are recruited and become substrates for regulatory enzymes (especially tyrosine kinases) that are associated with the receptor. These events stimulate growth and differentiation of T cells.

#### Background

Interleukin 2 binds to the IL-2 receptor which leads to heterodimerization of the cytoplasmic domains of the IL-2R beta and gamma(c) chains, activation of the tyrosine kinase Jak3, and phosphorylation of tyrosine residues on the IL-2R beta chain. These