

## Romiplostim In Vitro Transcribed mRNA-LNP

Catalog Number:SG-MRNA-LNP-1864

DESCRIPTION	
Product Name	Romiplostim In Vitro Transcribed mRNA-LNP
Gene Name	Romiplostim
Source	The ORF of Romiplostim 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	Romiplostim
SPECIFICATIONS	
Cap	m7GpppN
5'-UTR	5' -untranslated region derived from human alpha-globin RNA with an optimized Kozak sequence
ORF	41aa thrombopoietin (TPO) analogue peptide
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	Romiplostim

residues. Each subunit consists of an IgG1 Fc carrier domain that is covalently attached to a polypeptide sequence that contains two binding domains to interact with thrombopoietin receptor c-Mpl. Each domain consists of 14 amino acids. Interestingly, romiplostim's amino acid sequence is not similar to that of endogenous thrombopoietin.

#### Background

Romiplostim is a thrombopoiesis stimulating dimer Fc-peptide fusion protein (peptibody) to increase platelet production through activation of the thrombopoietin receptor. The peptibody molecule has two identical single-chain subunits, each one is made up of 269 amino acid