

## Salmon calcitonin In Vitro Transcribed mRNA-LNP

Catalog Number:SG-MRNA-LNP-1890

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

production of vitamin D producing enzymes (25-hydroxyvitamin D-24-hydroxylase), leading to greater calcium retention and enhanced bone density. Binding of calcitonin to its receptor also activates adenyl cyclase and the phosphatidyl-inositol-calcium pathway.

#### Background

Salmon calcitonin is a synthetic peptide form of calcitonin used to inhibit bone resorption in the treatment of hypercalcemia, osteoporosis, and Paget's disease. Calcitonin binds to the calcitonin receptor (found primarily in osteoclasts) which then enhances the