

Human follicle-stimulating hormone In Vitro Transcribed mRNA-LNP

Catalog Number:SG-MRNA-LNP-1878

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

subunits. The alpha- and beta- subunits have 92 and 111 amino acids. The alpha subunit is glycosylated at Asn 51 and Asn 78 while the beta subunit is glycosylated at Asn 7 and Asn 24. Follitropin is a recombinant form of endogenous follicle stimulating hormone (FSH). FSH binds to the follicle stimulating hormone receptor which is a G-coupled transmembrane receptor. Binding of the FSH to its receptor seems to induce phosphorylation and activation of the PI3K (Phosphatidylinositol-3-kinase) and Akt signaling pathway, which is known to regulate many other metabolic and related survival/maturation functions in cells.

Background

Follitropin is a human follicle stimulating hormone (FSH) preparation of recombinant DNA origin, which consists of two non-covalently linked, non-identical glycoproteins designated as the alpha- and beta-