

Human chorionic gonadotropin In Vitro Transcribed mRNA-LNP

Catalog Number:SG-MRNA-LNP-1879

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

maintenance of the corpus luteum during the beginning of pregnancy. This allows the corpus luteum to continuously secrete the hormone progesterone during the first trimester, which is required for maintenance of the uterus and prevents menstruation. In males, HCG also stimulates the production of gonadal steroid hormones by stimulating the interstitial cells (Leydig cells) of the testis to produce androgens. HCG is composed of an alpha and a beta sub-unit. The alpha sub-unit is essentially identical to the alpha sub units of the human pituitary gonadotropins, luteinizing hormone (LH) and follicle-stimulating hormone (FSH), as well as to the alpha sub-unit of human thyroid-stimulating hormone (TSH), while the beta sub units of these hormones differ in amino acid sequence. As a drug product, chorionic gonadotropin is a highly purified pyrogen-free preparation obtained from the urine of pregnant females.

Background

Human chorionic gonadotropin (HCG), a polypeptide hormone produced by the human placenta. Endogenously produced HCG interacts with the LHCG receptor of the ovary and promotes the