

Histrelin In Vitro Transcribed mRNA-LNP

Catalog Number:SG-MRNA-LNP-1896

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

inhibits gonadotropin secretion through the reversible down-regulation of gonadotropin-releasing hormone (GnRH) receptors in the pituitary gland and desensitization of the pituitary gonadotropes.^{6,8} In pediatric patients with central precocious puberty (CPP), long-term treatment with histrelin acetate suppresses the luteinizing hormone (LH) response to GnRH, causing LH levels to decrease to prepubertal levels within one month of treatment. This reduces ovarian and testicular steroidogenesis and slows down linear growth velocity, improving the chance of attaining predicted adult height.

Background

Histrelin is a gonadotropin-releasing hormone (GnRH) agonist that acts as a potent inhibitor of gonadotropin when administered as an implant delivering continuous therapeutic doses. This drug is a synthetic analog of naturally occurring GnRH with a higher potency. Histrelin