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TERT Circular RNA for Cancer Vaccine Research

Catalog Number:CVAC-ORNA-0451

DESCRIPTION	
Product Name	TERT Circular RNA for Cancer Vaccine Research
Gene Name	TERT
Source	In vitro transcribed mRNA was further circularized to make this product as a circular RNA.
Alternative names	Synthetic hTERT DNA Vaccine INO-1400
SPECIFICATIONS	
Cap	
5'-UTR	5' -untranslated region derived from human alpha-globin RNA with an optimized Kozak sequence
ORF	TERT
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	
Modifications	N1-methyl-pseudouridine
Neutral Lipid	1,2-distearoyl-sn-glycero-3-phosphocholine (DSPC)
Cholesterol	Cholesterol
Lonizable 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	-80 °C
Buffer	PBS, pH7.5
Cryoprotectant	Trehalose
BACKGROUND	
Gene Accession	
Gene Alias	Synthetic hTERT DNA Vaccine INO-1400

	activates the immune system to mount a cytotoxic T-cell (CTL) response against telomerase-expressing tumor cells, which may result in tumor cell death. Telomerase prolongs the functional lifespan of cells via the restoration and maintenance of telomere length. Abnormally activated in tumorigenesis, telomerase is expressed in the majority of human cancer cells, but its expression is low or non-existent in normal cells. (NCIT_C120118).
Background	Description: A DNA vaccine consisting of a plasmid encoding the full-length sequence of the tumor-associated antigen (TAA) human telomerase reverse transcriptase (hTERT), which is the catalytic subunit of human telomerase and synthesizes telomeric DNA at the chromosome ends, containing two immunogenic mutations, with potential immunostimulating and antineoplastic activities. Upon intradermal vaccination of the hTERT encoding DNA vaccine INO-1400 in combination with electroporation, hTERT protein is expressed and