

PSA/PSMA Circular RNA for Cancer Vaccine Research

Catalog Number:CVAC-ORNA-0371

DESCRIPTION	
Product Name	PSA/PSMA Circular RNA for Cancer Vaccine Research
Gene Name	PSA/PSMA
Source	In vitro transcribed mRNA was further circularized to make this product as a circular RNA.
Alternative names	PSA/PSMA DNA Plasmid INO-5150
SPECIFICATIONS	
Cap	
5'-UTR	5' -untranslated region derived from human alpha-globin RNA with an optimized Kozak sequence
ORF	PSA/PSMA
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	PSA/PSMA DNA Plasmid INO-5150

mediated tumor cell death and the inhibition of tumor cell proliferation. PSA and PSMA are overexpressed on a variety of cancer cell types. The DNA encoding the TAAs in INO-5150 is based on both human and other primate antigen gene sequences. As the plasmid genes differ from the human gene sequences encoding these antigens, INO-5150 may overcome immune tolerance to human TAAs. (NCIT_C123283).

Background

Description: A plasmid DNA vaccine encoding the tumor-associated antigens (TAAs) prostate-specific antigen (PSA) and prostate-specific membrane antigen (PSMA), with potential immunoactivating and antineoplastic activities. Upon intramuscular delivery and electroporation of the PSA/PSMA DNA plasmid INO-5150, both PSA and PSMA are translated in cells which then activate the immune system. This induces cytotoxic T-lymphocyte (CTL) responses against tumor cells expressing PSA and PSMA. This may result in both immune-