

## Denileukin diftotox In Vitro Transcribed mRNA-LNP

Catalog Number:SG-MRNA-LNP-1882

| DESCRIPTION       |   |
|-------------------|---|
| Product Name      | Denileukin diftotox In Vitro Transcribed mRNA-LNP   |
| Gene Name         | Diphtheria toxin&IL-2   |
| Source            | The ORF of Denileukin diftotox 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 | Denileukin diftotox   |
| SPECIFICATIONS    |   |
| Cap               | m7GpppN   |
| 5'-UTR            | 5' -untranslated region derived from human alpha-globin RNA with an optimized Kozak sequence  |
| ORF               | Denileukin diftotox   |
| 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        | Denileukin diftotox   |
|                   |   |

complex. The IL-2 receptor (Tac) subunit is expressed on activated but not resting lymphocytes. The diphtheria toxin associated with Ontak then selectively kills the IL-2 bearing cells.

#### Background

Denileukin diftitox is a recombinant cytotoxic protein based on a combination of diphtheria toxin fragments and interleukin-2 used to treat cutaneous T-cell lymphoma by targeting the interleukin-2 receptor. Denileukin diftitox binds to the high-affinity IL-2 receptor