

## **Product** Data Sheet

## Diamino lipid DAL4

Cat. No.: HY-151508 CAS No.: 2939000-43-6 Molecular Formula:  $C_{52}H_{99}BFN_3O_3$ 

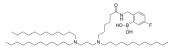
Molecular Weight: 844.17

Target: Liposome

Pathway: Metabolic Enzyme/Protease

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.



## **BIOLOGICAL ACTIVITY**

Description	Diamino lipid DAL4 is diamino lipid for the preparation of lipid nanoparticles (LNPs) encapsulated with mRNAs encoding cytokines including IL-12, IL-27 and GM-CSF. Diamino lipid DAL4 delivers mRNA to tumor cells to exert anti-tumor activity <sup>[1]</sup> .
In Vitro	Diamino lipid DAL4 (DAL4-LNP) effectively delivers different mRNAs in vitro to tumor cells <sup>[1]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Diamino lipid DAL4 (DAL4-LNP) loaded with IL-12 mRNA (intratumoral injection) is most potent in inhibiting B16F10 melanoma tumor growth compared to IL-27 or GM-CSF mRNAs in monotherapy <sup>[1]</sup> .  Diamino lipid DAL4 loaded with IL-12 mRNA and IL-27 mRNA (intratumoral injection) shows synergistic effect in suppressing tumor growth without causing systematic toxicity <sup>[1]</sup> .  And also Diamino lipid DAL4 induces robust infiltration of immune effector cells, including IFN-γ and TNF-α producing natural killer cells (NK) and CD8 <sup>+</sup> T cells into tumors <sup>[1]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## **REFERENCES**

[1]. Liu JQ, et al. Intratumoral delivery of IL-12 and IL-27 mRNA using lipid nanoparticles for cancer immunotherapy. J Control Release. 2022 May;345:306-313.

Caution: Product has not been fully validated for medical applications. For research use only.

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