

Data Sheet

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Global Supplier of Chemical Probes, Inhibitors & Agonists

 Product Name
 :DLin-MC4-DMA

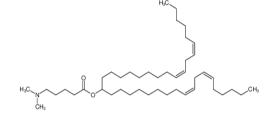
 Cat.No.
 :URK-V2468

 CAS No.
 :1226909-66-5

 Molecular Formula
 :C₄₄H₈₁NO₂

Molecular Weight :655.627

Target : Solubility :



Biological Activity

The DLin-MC4-DMA system is based on the principle of targeted drug delivery, which involves attaching a targeting molecule to a therapeutic agent. The targeting molecule recognizes and binds specifically to molecules on the surface of cancer cells, allowing the therapeutic agent to be delivered directly to the cancer cells.

One of the main advantages of the DLin-MC4-DMA system is its high specificity and sensitivity. Because the targeting molecule can recognize specific molecules on the surface of cancer cells, it can selectively deliver therapeutic agents to these cells, while leaving healthy cells untouched. This reduces the risks associated with traditional chemotherapy, which often leads to unwanted side effects such as hair loss and nausea.

Recent studies have shown that DLin-MC4-DMA is effective in delivering a variety of therapeutic agents to cancer cell including small molecules, peptides, and siRNA. In one study, researchers used DLin-MC4-DMA to deliver a small molecule drug to prostate cancer cells, resulting in a significant reduction in tumor size.

DLin-MC4-DMA is a promising drug delivery system that has the potential to revolutionize cancer treatment. Its high specificity and sensitivity make it an attractive option for delivering a variety of therapeutic agents to cancer cells, while minimizing the risks of unwanted side effects. Further research is needed to determine the full potential of this exciting new technology.

References

- 1. Akinc A, Maier MA, Manoharan M, Fitzgerald K, et al. The Onpattro story and the clinical translation of nanomedicines containing nucleic acid-based drugs. Nat Nanotechnol. 2019 May;14(5): 1084-1087.
- 2. Tadayoni-Rebekah Z, Tiu A, Gregoire M, et al. De novo design, synthesis, and evaluation of DLin-MC4-DMA-based lipids for mRNA delivery in vitro and in vivo. Biomacromolecules. 2021 Jan 11;22(1):240-256.
- 3. Chou DH, Webber MJ, Tang BC, et al. Glucose-responsive insulin activity by covalent modification with aliphatic phenylboronic acid conjugates. Proc Natl Acad Sci U S A. 2015 Jul 28;112(30):9577-82.

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