SZABO SCANDIC

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# Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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See the following pages for more information!

## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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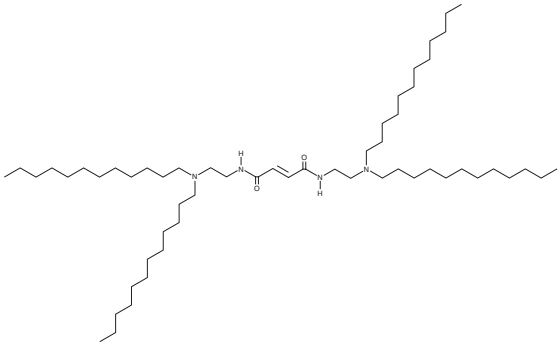
# PRODUCT INFORMATION

## YHS-12

*Item No. 40510*



**CAS Registry No.:** 2959463-68-2
**Formal Name:** (2E)-$N^1$,$N^4$-*bis*[2-(didodecylamino) ethyl]-2-butenediamide
**MF:** $C_{56}H_{112}N_4O_2$
**FW:** 873.5
**Purity:** ≥95%
**Supplied as:** A solid
**Storage:** -20°C
**Stability:** ≥4 years

*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Laboratory Procedures

YHS-12 is supplied as a solid. A stock solution may be made by dissolving the YHS-12 in the solvent of choice, which should be purged with an inert gas. YHS-12 is slightly soluble (0.1-1 mg/ml) in methanol and sparingly soluble (1-10 mg/ml) in chloroform.

### Description

YHS-12 is an ionizable cationic lipid (p$K_a$ = 6.506) that has been used in the generation of lipid nanoparticles (LNPs) for the delivery of siRNA and mRNA *in vitro* and *in vivo*.[1] LNPs containing YHS-12 and the macrophage targeting peptide CRVLRSGSC and encapsulating mRNA encoding chimeric antigen receptor targeting methicillin-resistant *S. aureus* (MRSA) and siRNA targeting caspase-11 increase the phagocytosis rate of MRSA in RAW 264.7 macrophages and primary mouse bone marrow-derived macrophages (BMDMs). Intravenous administration of these LNPs decreases blood bacterial burden and increases survival in a model of sepsis using cyclophosphamide-induced immunosuppressed mice.

### Reference


1. Tang, C., Jing, W., Han, K., *et al.* mRNA-laden lipid-nanoparticle-enabled in situ CAR-macrophage engineering for the eradication of multidrug-resistant bacteria in a sepsis mouse model. *ACS Nano* **18(3)**, 2261-2278 (2024).





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