## ECHELON<sup>®</sup> BIOSCIENCES

## YSK05

Catalog number: N-1050



Molecular Formula: C<sub>42</sub>H<sub>77</sub>NO<sub>2</sub>

**MW:** 628.08

**CAS#:** 1318793-78-0

Alternative Names: 1-Methyl-4,4-bis(((9Z,12Z)-octadeca-9,12-dien-1-yl)oxy)piperidine

Solubility: ethanol, chloroform, ethyl acetate

Storage and Handling: Store dry at -20 °C or below. Stock solutions should be stored at -20 °C.

**Background:** YSK05 is an ionizable lipid which is used to make lipid nanoparticles for delivery of siRNA. YSK LNPs delivered siRNA to hepatocytes and demonstrated gene silencing after intravenous administration.

**References:** 1) Sato, Y., Hatakeyama, H., Sakurai, Y., et al. (2012) "A pH-sensitive cationic lipid facilitates the delivery of liposomal siRNA and gene silencing activity in vitro and in vivo." J. Control. Release 163(3), 267-276. 2) Sato, Y., Hatakeyama, H., Kohara, M. (2016) "A Multifunctional Envelope-Type Nano Device Containing a pH-Sensitive Cationic Lipid for Efficient Delivery of Short Interfering RNA to Hepatocytes In Vivo" Methods Mol. Bio. 1364:71-8. doi: 10.1007/978-1-4939-3112-5\_7.

3) Shobaki, N., Sato, Y., Hatakeyama, H. (2018) "Mixing lipids to manipulate the ionization status of lipid nanoparticles for specific tissue targeting" Int. J. Nanomedicine 13: 8395–8410, doi: 10.2147/IJN.S188016.

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

Warranty and Disclaimer: Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.

Technical Data Sheet, Rev 1, 5/21/2024 - For research use only. Not intended for diagnostic or therapeutic use.



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