

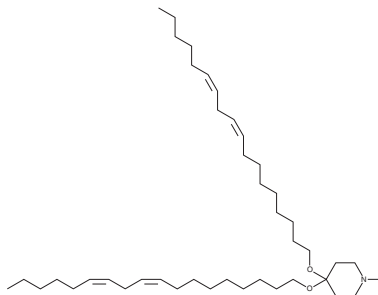
# PRODUCT INFORMATION



## YSK05

Item No. 35786

**CAS Registry No.:** 1318793-78-0  
**Formal Name:** 1-methyl-4,4-bis[(9Z,12Z)-9,12-octadecadien-1-yloxy]-piperidine  
**MF:** C<sub>42</sub>H<sub>77</sub>NO<sub>2</sub>  
**FW:** 628.1  
**Purity:** ≥90%  
**Supplied as:** A solution in ethanol  
**Storage:** -20°C  
**Stability:** ≥1 year



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

### Description

YSK05 is an ionizable cationic amino lipid (apparent  $pK_a = \sim 6.5$ ) that has been used in combination with other lipids in the formation of liposomes and lipid nanoparticles (LNPs).<sup>1-3</sup> Administration of cyclic di-GMP (Item No. 17144) in YSK05-containing liposomes increases serum levels of IFN- $\beta$ , IFN- $\gamma$ , IL-6, and TNF- $\alpha$  and activates natural killer (NK) cells in mice, as well as decreases lung metastasis in a B16/F10 murine melanoma model of metastasis.<sup>2</sup> Intravenous administration of factor VII siRNA in YSK05-containing LNPs reduces factor VII activity in isolated mouse plasma.<sup>3</sup>

### References

1. Sato, Y., Hatakeyama, H., Sakurai, Y., *et al.* 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 (2012).
2. Nakamura, T., Miyabe, H., Hyodo, M., *et al.* Liposomes loaded with a STING pathway ligand, cyclic di-GMP, enhance cancer immunotherapy against metastatic melanoma. *J. Control. Release* **216**, 149-157 (2015).
3. Sato, Y., Note, Y., Maeki, M., *et al.* Elucidation of the physicochemical properties and potency of siRNA-loaded small-sized lipid nanoparticles for siRNA delivery. *J. Control. Release* **229**, 48-57 (2016).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM