

# PRODUCT INFORMATION

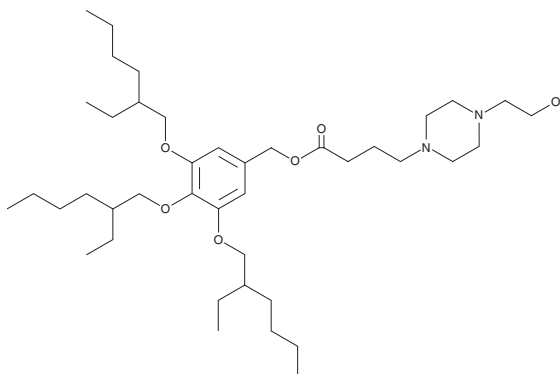


## IAJD97

Item No. 9004563

CAS Registry No.: 2857089-36-0  
Formal Name: 4-(2-hydroxyethyl)-1-piperazinebutanoic acid, [3,4,5-tris[(2-ethylhexyl)oxy]phenyl]methyl ester

MF:  $C_{41}H_{74}N_2O_6$   
FW: 691.0  
Purity:  $\geq 98\%$   
Supplied as: A neat oil  
Storage:  $-20^\circ\text{C}$   
Stability:  $\geq 1$  year



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

### Laboratory Procedures

IAJD97 is supplied as a neat oil. A stock solution may be made by dissolving the IAJD97 in the solvent of choice, which should be purged with an inert gas. IAJD97 is soluble in chloroform.

### Description

IAJD97 is an ionizable amphiphilic Janus dendrimer ( $pK_a = 6.46$ ) that has been used in the generation of dendrosome nanoparticles (DNPs) for the delivery of mRNA *in vivo*.<sup>1,2</sup> DNPs composed of IAJD97 and encapsulating mRNA encoding luciferase selectively accumulate in the lymph nodes, spleen, and lungs over the liver and heart in mice.<sup>1</sup>

### References

1. Zhang, D., Atochina-Vasserman, E.N., Maurya, D.S., *et al.* Targeted delivery of mRNA with one-component ionizable amphiphilic Janus dendrimers. *J. Am. Chem. Soc.* **143**(43), 17975-17982 (2021).
2. Arshad, M., Atochina-Vasserman, E.N., Chenna, S.S., *et al.* Accelerated ten-gram-scale synthesis of one-component multifunctional sequence-defined ionizable amphiphilic Janus dendrimer 97. *Biomacromolecules* **25**(10), 6871-6882 (2024).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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