

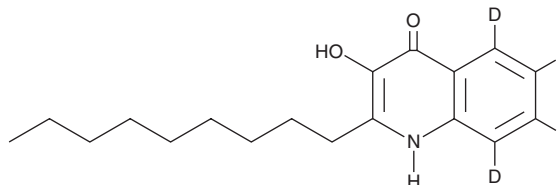
PRODUCT INFORMATION



2-nonyl-3-hydroxy-4-Quinolone-d₄

Item No. 9003969

Formal Name:	3-hydroxy-2-nonyl-4(1H)-quinolinone-d ₄
Synonym:	C9-PQS-d ₄
MF:	C ₁₈ H ₂₁ D ₄ NO ₂
FW:	291.4
Chemical Purity:	≥98% (2-nonyl-3-hydroxy-4-Quinolone)
Deuterium Incorporation:	≥99% deuterated forms (d ₁ -d ₄); ≤1% d ₀
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Synthetic



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

Laboratory Procedures

2-nonyl-3-hydroxy-4-Quinolone-d₄ is intended for use as an internal standard for the quantification of 2-nonyl-3-hydroxy-4-quinolone (Item No. 9002699) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

2-nonyl-3-hydroxy-4-Quinolone-d₄ is supplied as a solid. A stock solution may be made by dissolving the 2-nonyl-3-hydroxy-4-quinolone-d₄ in the solvent of choice, which should be purged with an inert gas. 2-nonyl-3-hydroxy-4-Quinolone-d₄ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 2-nonyl-3-hydroxy-4-quinolone-d₄ in these solvents is approximately 5, 25, and 15 mg/ml, respectively.

Description

2-nonyl-3-hydroxy-4-Quinolone is a bacterial quorum-sensing signal molecule produced by *P. aeruginosa*.¹ It activates a biosensor for the *P. aeruginosa* gene *pqsA*, which encodes the first enzyme in the *P. aeruginosa* biosynthesis of the bacterial quorum-sensing signal molecule 2-heptyl-3-hydroxy-4-quinolone (Item No. 29186), in a concentration-dependent manner.²

References

1. Nguyen, A.T., Jones, J.W., Ruge, M.A., *et al.* Iron depletion enhances production of antimicrobials by *Pseudomonas aeruginosa*. *J. Bacteriol.* **197**(14), 2265-2275 (2015).
2. Fletcher, M.P., Diggle, S.P., Crusz, S.A., *et al.* A dual biosensor for 2-alkyl-4-quinolone quorum-sensing signal molecules. *Environ. Microbiol.* **9**(11), 2683-2693 (2007).

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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