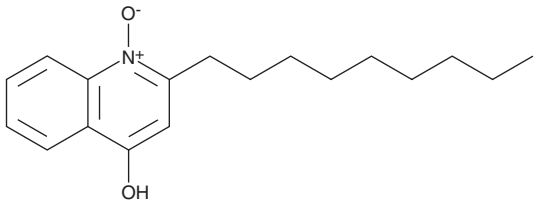
PRODUCT INFORMATION

2-Nonyl-4-hydroxyquinoline N-oxide

Item No. 45204

CAS Registry No.: 316-66-5
Formal Name: 2-nonyl-4-quinolinol 1-oxide
Synonyms: NoHOQnO, NQNO
MF: $C_{18}H_{25}NO_2$
FW: 287.4
Purity: ≥98%
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.

Description

2-Nonyl-4-hydroxyquinoline N-oxide (NQNO) is an electron transport inhibitor.[1,2] It inhibits electron transport in plants and bacteria by inhibiting the reduction of endogenous quinones by binding at the Q_n-site of the photosynthetic cytochrome b_6f complex. NQNO has been used to study electron transfer mechanisms in biological systems. It has also been isolated from *P. aeruginosa* swarms after exposure to tobramycin (Item Nos. 14596 | 41453).[3]

References

1. Jones, R.W. and Whitmarsh, J. Inhibition of electron transfer and the electrogenic reaction in the cytochrome *b/f* complex by 2-*n*-nonyl-4-hydroxyquinoline N-oxide (NQNO) and 2,5-dibromo-3-methyl-6-isopropyl-*p*-benzoquinone (DBMIB). *Biochimica et Biophysica Acta* **933,** 258-268 (1988).
2. Hasan, S.S., Yamashita, E., Baniulis, D., *et al.* Quinone-dependent proton transfer pathways in the photosynthetic cytochrome b_6f complex. *Proc. Natl. Acad. Sci. USA* **110(11),** 4297-4302 (2013).
3. Morales-Soto, N., Dunham, S.J.B., Baig, N.F., *et al.* Spatially dependent alkyl quinolone signaling responses to antibiotics in *Pseudomonas aeruginosa* swarms. *J. Biol. Chem.* **293(24),** 9544-9552 (2018).

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