

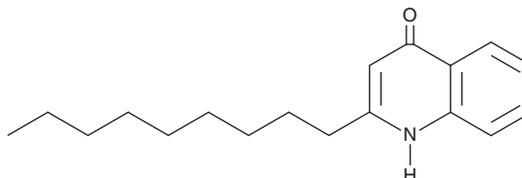
PRODUCT INFORMATION



2-Nonylquinolin-4(1H)-one

Item No. 9003627

CAS Registry No.: 55396-45-7
Formal Name: 2-nonyl-4(1H)-quinolinone
Synonyms: 2-n-Nonyl-4-quinolone,
2-Nonyl-1H-quinolin-4-one,
2-Nonylquinolin-4(1H)-one,
Pseudane IX
MF: C₁₈H₂₅NO
FW: 271.4
Purity: ≥95%
UV/Vis.: λ_{max}: 213, 236, 316, 328 nm
Supplied as: A crystalline 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-Nonylquinolin-4(1H)-one is supplied as a crystalline solid. A stock solution may be made by dissolving the 2-nonylquinolin-4(1H)-one in the solvent of choice, which should be purged with an inert gas. 2-Nonylquinolin-4(1H)-one is soluble in the organic solvents ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 2-nonylquinolin-4(1H)-one in ethanol and DMF is approximately 30 mg/ml and approximately 15 mg/ml in DMSO.

Description

2-Nonylquinolin-4(1H)-one is a quinolone alkaloid that has been found in *P. aeruginosa* and has diverse biological activities.¹⁻⁴ It reduces infection of Huh7.5 cells by hepatitis C virus (HCV) with an IC₅₀ value of 1.4 μg/ml.¹ 2-Nonylquinolin-4(1H)-one (50 and 100 μg/ml) is also active against *L. gongylophorus*, a symbiotic fungus of the agricultural pest *A. sexdens* (leaf-cutting ant).² It inhibits activation of nuclear factor of activated T cells (NFAT) induced by phorbol 12-myristate 13-acetate (TPA; Item No. 10008014) and the calcium ionophore A23187 (Item No. 11016) in Jurkat cells (IC₅₀ = 3.44 μM), but not LPS-induced NF-κB activation in RAW 264.7 cells (IC₅₀ = >100 μM), in reporter assays.³ This compound is expected to exist in one or both tautomeric forms, depending on experimental conditions.

References

1. Wahyuni, T.S., Widyawaruyanti, A., Lusida, M.I., et al. Inhibition of hepatitis C virus replication by chalepin and pseudane IX isolated from *Ruta angustifolia* leaves. *Fitoterapia* **99**, 276-283 (2014).
2. Biavatti, M.W., Vieira, P.C., da Silva, F.d.G.F., et al. Biological activity of quinoline alkaloids from *Raulinoa echinata* and X-ray structure of flindersiamine. *J. Braz. Chem. Soc.* **13(1)**, 66-70 (2002).
3. Jin, H.Z., Lee, J.H., Lee, D., et al. Quinolone alkaloids with inhibitory activity against nuclear factor of activated T cells from the fruits of *Evodia rutaecarpa*. *Biol. Pharm. Bull.* **27(6)**, 926-928 (2004).
4. Ortori, C.A., Dubern, J.-F., Chhabra, S.R., et al. Simultaneous quantitative profiling of N-acyl-L-homoserine lactone and 2-alkyl-4(1H)-quinolone families of quorum-sensing signaling molecules using LC-MS/MS. *Anal. Bioanal. Chem.* **399(2)**, 839-850 (2011).

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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