# PRODUCT INFORMATION

## 2-Nonylquinolin-4(1H)-one

*Item No. 9003627*

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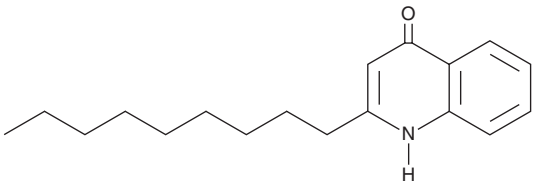
| **CAS Registry No.:** | 55396-45-7 |
| **Formal Name:** | 2-nonyl-4(1H)-quinolinone |
| **Synonyms:** | 2-n-Nonyl-4-quinolone,<br>2-Nonyl-1H-quinolin-4-one,<br>2-Nonylquinolin-4(1H)-one,<br>Pseudane IX |
| **MF:** | $C_{18}H_{25}NO$ |
| **FW:** | 271.4 |
| **Purity:** | ≥95% |
| **UV/Vis.:** | $\lambda_{max}$: 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 $IC_{50}$ 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 ($IC_{50}$ = 3.44 µM), but not LPS-induced NF-κB activation in RAW 264.7 cells ($IC_{50}$ = >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).





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