

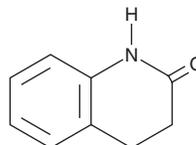
PRODUCT INFORMATION



3,4-Dihydroquinolin-2(1H)-one

Item No. 31701

CAS Registry No.: 553-03-7
Formal Name: 3,4-dihydro-2(1H)-quinolinone
MF: C₉H₉NO
FW: 147.2
Purity: ≥98%
UV/Vis.: λ_{max}: 250 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

3,4-Dihydroquinolin-2(1H)-one is supplied as a crystalline solid. A stock solution may be made by dissolving the 3,4-dihydroquinolin-2(1H)-one in the solvent of choice, which should be purged with an inert gas. 3,4-Dihydroquinolin-2(1H)-one is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of 3,4-dihydroquinolin-2(1H)-one in these solvents is approximately 30 mg/ml.

3,4-Dihydroquinolin-2(1H)-one is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 3,4-dihydroquinolin-2(1H)-one should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 3,4-Dihydroquinolin-2(1H)-one has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

3,4-Dihydroquinolin-2(1H)-one is a building block.^{1,2} It has been used in the synthesis of compounds with antidepressant and anticonvulsant activities, as well as dual ligands of sigma (σ) receptors and the NMDA receptor GluN2b subunit that have antioxidant and neuroprotective properties.

References

1. Deng, X.-Q., Song, M.-X., Zheng, Y., *et al.* Design, synthesis and evaluation of the antidepressant and anticonvulsant activities of triazole-containing quinolinones. *Eur. J. Med. Chem.* **73**, 217-224 (2014).
2. Zampieri, D., Fortuna, S., Calabretti, A., *et al.* Discovery of new potent dual sigma receptor/GluN2b ligands with antioxidant property as neuroprotective agents. *Eur. J. Med. Chem.* **180**, 268-282 (2019).

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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