

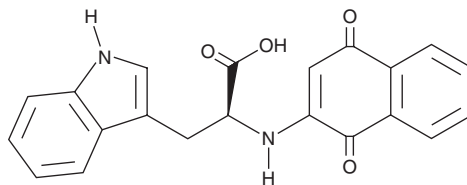
PRODUCT INFORMATION



NQTrp

Item No. 19127

CAS Registry No.: 185351-19-3
Formal Name: N-(1,4-dihydro-1,4-dioxo-2-naphthalenyl)-L-tryptophan
Synonym: 1,4-Naphthoquinon-2-yl-L-tryptophan
MF: C₂₁H₁₆N₂O₄
FW: 360.4
Purity: ≥98%
UV/Vis.: λ_{max}: 220, 269, 446 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

NQTrp is supplied as a crystalline solid. A stock solution may be made by dissolving the NQTrp in the solvent of choice, which should be purged with an inert gas. NQTrp is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of NQTrp in ethanol is approximately 1 mg/ml and approximately 20 mg/ml in DMSO and DMF.

NQTrp is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NQTrp should first be dissolved in DMF and then diluted with the aqueous buffer of choice. NQTrp has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

NQTrp is an inhibitor of Alzheimer's disease-associated amyloid β (Aβ) oligomerization and fibrillization (IC₅₀ = 50 nM for formation of fibrils from Aβ1-42).^{1,2} It has been shown to reduce the cytotoxic effect of Aβ oligomers in a cultured neuronal cell line.¹

References

1. Scherzer-Attali, R., Pellarin, R., Convertino, M., *et al.* Complete phenotypic recovery of an Alzheimer's disease model by a quinone-tryptophan hybrid aggregation inhibitor. *PLoS One* **5**(6), (2010).
2. Zhang, T., Xu, W., Mu, Y., *et al.* Atomic and dynamic insights into the beneficial effect of the 1,4-naphthoquinon-2-yl-L-tryptophan inhibitor on Alzheimer's Aβ1-42 dimer in terms of aggregation and toxicity. *ACS Chem. Neurosci.* **5**(2), 148-159 (2016).

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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