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: C_{21}H_{16}N_{2}O_{4}
FW: 360.4
Purity: ≥98%
UV/Vis.: \( \lambda_{\text{max}} \): 220, 269, 446 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly

Laboratory Procedures

NQTrp is supplied as a crystalline solid. A stock solution may be made by dissolving the NQTrp in the solvent of choice. NQTrp is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. 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 fibrillation (IC_{50} = 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