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Print Date: Feb 17th 2016

Certificate of Analysis

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Product Name: **NQTrp** **Catalog No.: 5398** **Batch No.: 1**

CAS Number: 185351-19-3

IUPAC Name: *N*-(1,4-Dihydro-1,4-dioxo-2-naphthalenyl)-L-tryptophan

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{21}H_{16}N_2O_4$

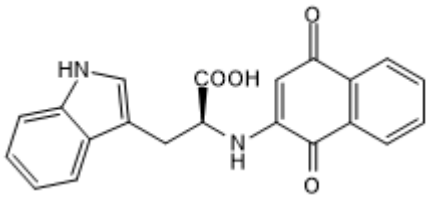
Batch Molecular Weight: 360.36

Physical Appearance: Dark orange solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.1 (Ethyl acetate)

HPLC: Shows 99% purity

Chiral HPLC: Shows 100% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	69.99	4.48	7.77
Found	69.71	4.48	7.48

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Potent inhibitor of Aβ oligomer and fibril formation (IC_{50} = 50 nM for formation of fibrils from Aβ1-42). Reduces cytotoxicity of Aβ oligomers and increases cell viability in neuronal cells. Significantly extends lifespan of Drosophila expressing human Aβ1-42 .

Physical and Chemical Properties:

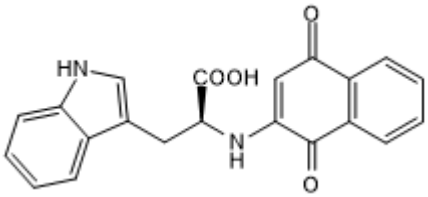
Batch Molecular Formula: $C_{21}H_{16}N_2O_4$

Batch Molecular Weight: 360.36

Physical Appearance: Dark orange solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM

CAUTION - This product is susceptible to decomposition when stored in solution. Therefore, we recommend that, as far as possible, solutions should be made up and used immediately.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Scherzer-Attali *et al* (2010) Complete phenotypic recovery of an Alzheimer's disease model by a quinone-tryptophan hybrid aggregation inhibitor. PLoS ONE ***5*** e11101. PMID: 20559435.

Zhang *et al* (2013) 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*** 148. PMID: 24246047 .