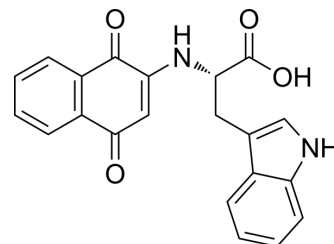


## NQTrp

Cat. No.:	HY-19738
CAS No.:	185351-19-3
Molecular Formula:	C <sub>21</sub> H <sub>16</sub> N <sub>2</sub> O <sub>4</sub>
Molecular Weight:	360.36
Target:	Tau Protein
Pathway:	Neuronal Signaling
Storage:	-20°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 125 mg/mL (346.88 mM); ultrasonic and warming and heat to 60°C						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	2.7750 mL	13.8750 mL	27.7500 mL
				5 mM	0.5550 mL	2.7750 mL	5.5500 mL
				10 mM	0.2775 mL	1.3875 mL	2.7750 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (5.77 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (5.77 mM); Clear solution						

### BIOLOGICAL ACTIVITY

Description	NQTrp, an aromatic naphthoquinone-tryptophan hybrid molecule, an inhibitor of the aggregation of the tau protein with generic anti-amyloidogenic effects. NQTrp inhibits the in vitro aggregation of hexapeptide ( <sup>41</sup> GCWMLY <sup>46</sup> within the N-terminus of γD-crystallin) as well as full-length γD-crystallin <sup>[1]</sup> .
In Vitro	In TEM analysis, GDC6 peptide fibrils (50 μM) in the presence of NQTrp 5:1, 1:1, 1:5 ratio (GDC6: NQTrp). NQTrp effectively inhibits the fibrillation of the GDC6 peptide (50 μM) in a dose-dependent manner and prevents the formation of elongated amyloid fibrils <sup>[1]</sup> . NQTrp has no toxic effect toward retinal cell culture and reduces the cytotoxicity induced by aggregates of the hexapeptide (IC <sub>50</sub> =70 μM) in ARPE-19 cells <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

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[1]. Malak Abu-Hussien, et al. An amyloidogenic hexapeptide from the cataract-associated  $\gamma$ D-crystallin is a model for the full-length protein and is inhibited by naphthoquinone-tryptophan hybrids. *Int J Biol Macromol.* 2020 Aug 15;157:424-433.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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