TQS

Cat. No.: HY-107682

CAS No.: 353483-92-8

Molecular Formula: $C_{22}H_{20}N_2O_2S$

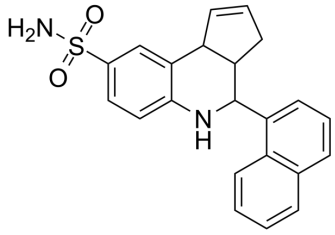
Molecular Weight: 376.47

Target: nAChR

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (332.03 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6563 mL	13.2813 mL	26.5625 mL
	5 mM	0.5313 mL	2.6563 mL	5.3125 mL
	10 mM	0.2656 mL	1.3281 mL	2.6563 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 (5.53 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.53 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.53 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

TQS is a α7 nicotinic acetylcholine receptor (nAChR) positive allosteric modulator. TQS can be used for the research of neuroinflammatory pain[1].

IC_{50} & Target

nAChR[1]

In Vivo

TQS (1 or 4 mg/kg; i.p.) reduces the expression of LPS-induced IκB mRNA, CD11b mRNA and regulates microglial morphological changes in the hippocampus[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male C57BL/6J mice[1]
Dosage:	1 or 4 mg/kg
Administration:	I.p.
Result:	Reduced the expression of LPS-induced IκB mRNA, CD11b mRNA and regulated microglial morphological changes in the hippocampus.

REFERENCES

[1]. Abbas M, et al. The α7 nicotinic acetylcholine receptor positive allosteric modulator attenuates lipopolysaccharide-induced activation of hippocampal IκB and CD11b gene expression in mice. Drug Discov Ther. 2017;11(4):206-211.

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