bio-techne
TOCRIS

Print Date: Oct 26th 2023

Certificate of Analysis

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Product Name: **Ro 61-8048** **Catalog No.: 3254** **Batch No.: 8**

CAS Number: 199666-03-0

IUPAC Name: 3,4-Dimethoxy-*N*-[4-(3-nitrophenyl)-2-thiazolyl]benzenesulfonamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{17}H_{15}N_3O_6S_2.¼H_2O$

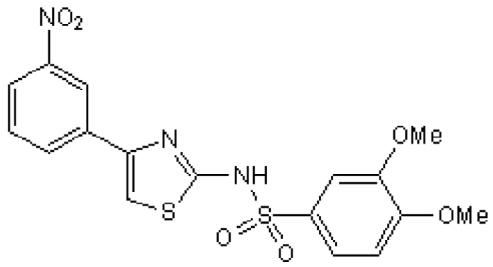
Batch Molecular Weight: 425.95

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM
ethanol to 10 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.3% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	47.94	3.67	9.86
Found	47.38	3.45	9.68

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Description:

Ro 61-8048 is a potent and competitive kynurenine 3-monooxygenase (kynurenine 3-hydroxylase; KMO) inhibitor (K_i = 4.8 nM, IC_{50} = 37 nM). Increases kynurenic acid levels to concentrations that antagonize the glycine site of NMDA receptors. Brain penetrant and exhibits antidystonic, anticonvulsant and neuroprotective activities. Ro 61-8048 decreases nicotine self-administration in vivo. Ro 61-8048 prevents post-operative brain edema and consequent neuronal apoptosis in a rat model of surgically induced brain injury.

Physical and Chemical Properties:

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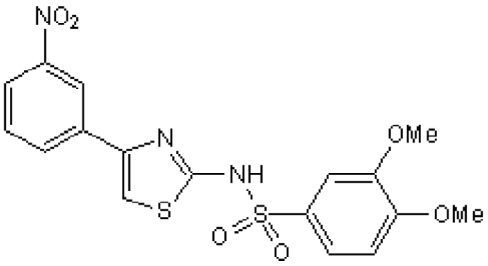
Batch Molecular Weight: 425.95

Physical Appearance: Yellow solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 10 mM

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Zakhary *et al* (2020) Modification of kynurenine pathway via inhibition of kynurenine hydroxylase attenuates surgical brain injury complications in a male rat model. J Neurosci Res ***98*** 155. PMID: 31257634.

Secci *et al* (2017) Attenuating nicotine reinforcement and relapse by enhancing endogenous brain levels of kynurenic acid in rats and squirrel monkeys. Neuropsychopharmacology ***42*** 1619. PMID: 28139681.

Justinova *et al* (2013) Reducing cannabinoid abuse and preventing relapse by enhancing endogenous brain levels of kynurenic acid. Nat.Neurosci. ***16*** 1652. PMID: 24121737.