

Product Name: U 93631

Catalog No.: 2745

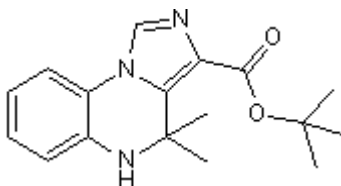
Batch No.: 1

CAS Number: 152273-12-6

IUPAC Name: 4,5-Dihydro-4,4-dimethyl-imidazo[1,5-a]quinoxaline-3-carboxylic acid 1,1-dimethylethyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₂₁N₃O₂ · ¼H₂O
Batch Molecular Weight: 303.87
Physical Appearance: White solid
Solubility: DMSO to 100 mM
ethanol to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (Ethyl acetate:Petroleum ether [1:1])
HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	67.19	7.13	13.83
Found	67.46	7.03	13.81

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

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Description:

GABA_A receptor antagonist that binds the picrotoxin site and stabilizes the inactive form of the channel via allosteric interaction. Accelerates the decay of GABA-induced Cl⁻ currents with little effect on peak amplitude. Also inhibits 5-HT_{3A} receptors via a similar mechanism.

Physical and Chemical Properties:

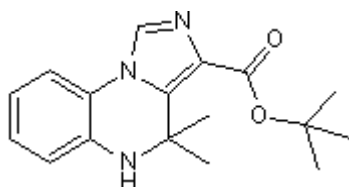
Batch Molecular Formula: C₁₇H₂₁N₃O₂ · ¼H₂O

Batch Molecular Weight: 303.87

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Dillon et al (1993) U-93631 causes rapid decay of γ -aminobutyric acid-induced chloride currents in recombinant rat γ -aminobutyric acid type A receptors. *Mol.Pharmacol.* **44** 860. PMID: 8232235.

Dillon et al (1995) [4-Dimethyl-3-t-butylcarboxyl-4,5-dihydro (1,5-a) quinoxaline] is a novel ligand to the picrotoxin site on GABA_A receptors, and decreases single-channel open probability. *J.Pharmacol.Exp.Ther.* **272** 597. PMID: 7531762.

Das et al (2003) The GABA_A receptor antagonist picrotoxin inhibits 5-hydroxytryptamine type 3A receptors. *Neuropharmacology* **44** 431. PMID: 12646280.

Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 100 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. 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.

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