

Certificate of Analysis

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Product Name: Ro 19-4603

Catalog No.: 1995

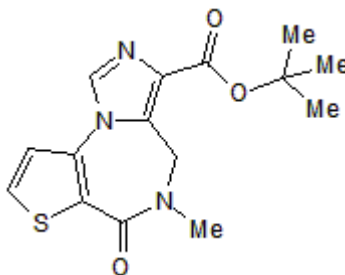
Batch No.: 1

CAS Number: 99632-94-7

IUPAC Name: 5,6-Dihydro-5-methyl-6-oxo-4*H*-imidazo[1,5-*a*]thieno[2,3-*f*][1,4]diazepine-3-carboxylic acid 1,1-dimethylethyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₁₇N₃O₃S
Batch Molecular Weight: 319.38
Physical Appearance: Light yellow solid
Solubility: ethanol to 100 mM
DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.25 (Ethyl acetate:Petroleum ether [3:7])
HPLC: Shows 99% purity
¹H NMR: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	56.41	5.36	13.15
Found	56.36	5.44	13.16

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

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Description:

Benzodiazepine inverse agonist. Binds with high affinity to both diazepam-sensitive (DS) and diazepam-insensitive (DI) GABA_A receptors (K_i values are ~ 0.2 and ~ 2.6 nM for DS and DI receptors respectively). Antagonizes effects of ethanol on locomotor behavior and suppresses ethanol intake in alcohol-preferring rats.

Physical and Chemical Properties:

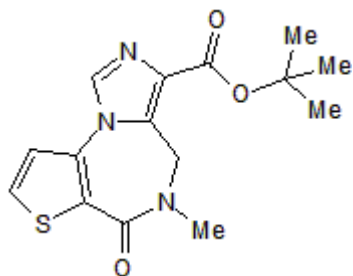
Batch Molecular Formula: C₁₅H₁₇N₃O₃S

Batch Molecular Weight: 319.38

Physical Appearance: Light yellow solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Wong and Skolnick (1992) High affinity ligands for 'diazepam-insensitive' benzodiazepine receptors. *Eur.J.Pharmacol.* **225** 63. PMID: 1311690.

June et al (1995) Effects of the benzodiazepine inverse agonist RO19-4603 on the maintenance of tolerance to a single dose of ethanol. *J.Pharmacol.Exp.Ther.* **274** 1105. PMID: 7562476.

June et al (1998) The novel benzodiazepine inverse agonist RO19-4603 antagonises ethanol motivated behaviours: neuropharmacological studies. *Brain Res.* **784** 256. PMID: 9518641.

Storage: Store at RT

Solubility & Usage Info:

ethanol to 100 mM

DMSO 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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