



Certificate of Analysis

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Product Name: Talampanel Catalog No.: 5032 Batch No.: 1

CAS Number: 161832-65-1

IUPAC Name: (8R)-7-Acetyl-5-(4-aminophenyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{19}H_{19}N_3O_3.^{3}4H_2O$

Batch Molecular Weight: 350.88

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM Storage: Store at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

Microanalysis:

HPLC: Shows 98.1% purity

1H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Carbon Hydrogen Nitrogen

Theoretical 65.08 5.89 11.98 Found 65.02 5.6 11.76





Product Information

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Description:

Non-competitive AMPA/kainate receptor antagonist that displays 2.3-3-fold more potent activity than GYKI 52466 (Cat. No. 1454). Potentiates the anticonvulsive activity of antiepileptic drugs in animal models of seizures. Orally active.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₉H₁₉N₃O₃.3/4H₂O

Batch Molecular Weight: 350.88 Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:

ON NH2

Storage: Store at +4°C

Solubility & Usage Info:

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.

References:

Czuczwar et al (1998) LY 300164, a novel antagonist of AMPA/kainate receptors, potentiates the anticonvulsive activity of antiepileptic drugs. Eur.J.Pharmacol. 359 103. PMID: 9832379.

Borowicz *et al* (2000) The AMPA/kainate receptor antagonist, LY 300164, increases the anticonvulsant effects of diazepam. Naunyn-Schmied.Arch.Pharmacol. *361* 629. PMID: 10882038.

Belayev *et al* (2001) Talampanel, a novel noncompetitive AMPA antagonist, is neuroprotective after traumatic brain injury in rats. J.Neurotrauma *18* 1031. PMID: 11686490.

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