

Certificate of Analysis

Product Name: GYKI 47261 dihydrochloride

Catalog No.: 3099

Batch No.: 1

CAS Number: 1217049-32-5

IUPAC Name: 4-(8-Chloro-2-methyl-11*H*-imidazo[1,2-*c*][2,3]benzodiazepin-6-benzeneamine dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₁₅ClN₄.2HCl.1¾H₂O

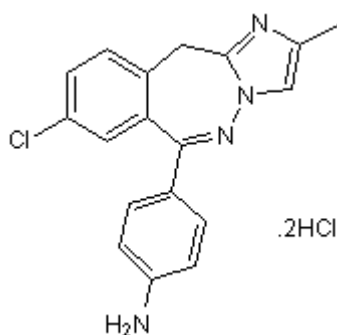
Batch Molecular Weight: 427.23

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.5 (Chloroform:Methanol [1:9])

HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 50.6 4.84 13.11

Found 50.69 4.76 13.05

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

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Description:

Non-competitive AMPA receptor antagonist ($IC_{50} = 2.5 \mu M$). Displays broad spectrum anticonvulsive activity and neuroprotective effects in vivo.

Physical and Chemical Properties:

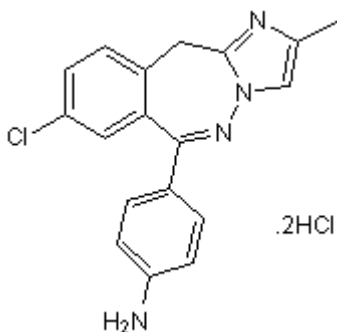
Batch Molecular Formula: $C_{18}H_{15}ClN_4 \cdot 2HCl \cdot 1\frac{3}{4}H_2O$

Batch Molecular Weight: 427.23

Physical Appearance: Yellow solid

Minimum Purity: >99%

Batch Molecular Structure:



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:

Abraham et al (2000) New non competitive AMPA antagonists. *Bioorg.Med.Chem.* **8** 2127. PMID: 11003158.

Solyo (2001) Research on new AMPA antagonists of 2,3-benzodiazepine type. *Pharmazie* **25** (Suppl. 1) S62.

Bibbiani et al (2005) Combined blockade of AMPA and NMDA glutamate receptors reduces levodopa-induced motor complications in animal models of PD. *Exp.Neurol.* **196** 422. PMID: 16203001.

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