

Product Name: GYKI 52466 dihydrochloride

Catalog No.: 1454

Batch No.: 7

CAS Number: 2319722-40-0

IUPAC Name: 4-(8-Methyl-9H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl)-benzenamine dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₅N₃O₂.HCl.½H₂O

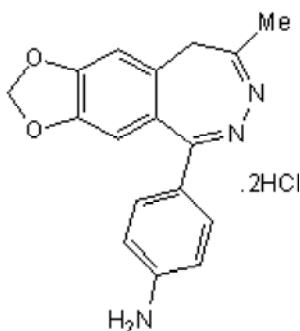
Batch Molecular Weight: 375.25

Physical Appearance: Yellow solid

Solubility: DMSO to 50 mM
water to 10 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.42 (Dichloromethane:Methanol:Ammonia soln. [90:9:1])

HPLC: Shows 97.8% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.41	4.83	11.2
Found	54.29	4.64	11.18

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Description:

GYKI 52466 dihydrochloride is a selective noncompetitive AMPA receptor antagonist (IC₅₀ values are 10-20, ~ 450 and >50 μM for AMPA-, kainate- and NMDA-induced responses respectively). Skeletal muscle relaxant and orally-active anticonvulsant. Has anti-proliferative effects in transformed cells.

Physical and Chemical Properties:

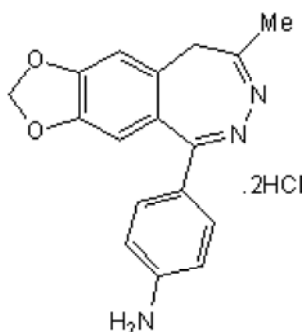
Batch Molecular Formula: C₁₇H₁₅N₃O₂.HCl.½H₂O

Batch Molecular Weight: 375.25

Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 50 mM

water 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. 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:

Rzeski et al (2001) Glutamate antagonists limit tumor growth. *Proc.Natl.Acad.Sci.USA* **98** 6372. PMID: 11331750.

Szabados et al (2001) Comparison of anticonvulsive and acute neuroprotective activity of three 2,3-benzodiazepine compounds, GYKI 52466, GYKI 53405, and GYKI 53655. *Brain Res.Bull.* **55** 387. PMID: 11489346.

Paternain et al (1995) Selective antagonism of AMPA receptors unmasks kainate receptor-mediated responses in hippocampal neurons. *Neuron* **14** 185. PMID: 7826635.

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