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# **DATASHEET**

GYKI 52466 hydrochloride

#### **Product overview**

Name GYKI 52466 hydrochloride

Cat No HB0311
Alternative names GYKI-52466
Biological action Antagonist
Purity >98%

**Description** Selective, non-competitive AMPA receptor antagonist

## **Images**



## **Biological Data**

**Biological description** 

Selective, non-competitive AMPA receptor antagonist ( $IC_{50}$  values are 10-20, approx. 450 and >50  $\mu$ M for AMPA-, kainate- and NMDA-induced responses, respectively). Inactive at NMDA receptors.

GYKI 52466 shows anti-convulsant and neuroprotective actions. It also acts as a skeletal muscle relaxant. The compounds is active in vivo and its effects have been shown to last from 60 to 90 min with plasma concentrations peaking within 15min and decreasing to <5% of peak levels within 90min of i.p. injection.

# **Solubility & Handling**

Solubility overview Storage instructions Storage of solutions

**Shipping Conditions** 

**Important** 

Soluble in water (10mM) or DMSO (25mM, heating)

room temperature (desiccate)

Prepare and use solutions on the same day if possible. Store solutions at -20°C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.

Stable for ambient temperature shipping. Follow storage instructions on receipt.

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

#### **Chemical Data**

**Chemical name** 

4-(8-Methyl-9*H*-1,3-dioxolo[4,5-*h*][2,3]benzodiazepin-5-yl)-benzenamine hydrochloride

Molecular Weight Chemical structure 329.79 O N HCI N

PubChem identifier 3538

**SMILES** CC1=NN=C(C2=CC3=C(C=C2C1)OCO3)C4=CC=C(C=C4)N

**Source** Synthetic

InChi InChi=1S/C17H15N3O2/c1-10-6-12-7-15-16(22-9-21-15)8-14(12)17(20-19-10)11-2-4-13(18)5-3-11/

h2-5,7-8H,6,9,18H2,1H3

InChiKey LFBZZHVSGAHQPP-UHFFFAOYSA-N

MDL numberMFCD00153803AppearanceYellow solid

#### References

GYKI 52466, a 2,3-benzodiazepine, is a highly selective, noncompetitive antagonist of AMPA/kainate receptor responses.

Donevan SD *et al* (1993) Neuron 10(1) **PubMedID**7678966

Pharmacological Preconditioning with GYKI 52466: A Prophylactic Approach to Neuroprotection.

Goulton CS *et al* (2010) Front Neurosci 4 **PubMedID** 20953290

Comparison of anticonvulsive and acute neuroprotective activity of three 2,3-benzodiazepine compounds, GYKI 52466, GYKI 53405, and GYKI 53655.

Szabados T *et al* (2001) Brain Res Bull 55(3) **PubMedID**11489346

Pharmacological Preconditioning with GYKI 52466: A Prophylactic Approach to Neuroprotection.

Goulton et al (doi: 10.3389) Front Cell Neurosci. 54 **PubMedID** 20953290