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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

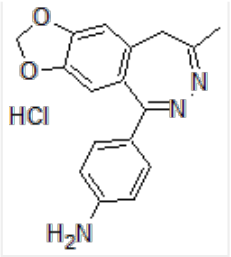
Biological description	Selective, non-competitive AMPA receptor antagonist (IC_{50} values are 10-20, approx. 450 and >50 µM for AMPA- , kainate- and NMDA-induced responses, respectively). Inactive at NMDA receptors. GYKI 52466 shows anti-convulsant and neuroprotective actions. It also acts as a skeletal 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

Storage instructions	room temperature (desiccate)
Solubility overview	Soluble in water (10mM) or DMSO (25mM, heating)
Important	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	329.79
Chemical structure	



Molecular Formula	$C_{17}H_{15}N_3O_2.HCl$
CAS Number	102771-26-6
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 number	MFCD00153803
Appearance	Yellow 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