

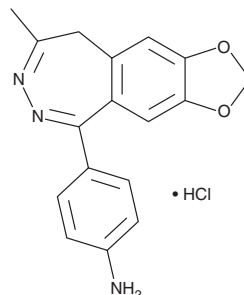
PRODUCT INFORMATION



GYKI 52466 (hydrochloride)

Item No. 34418

CAS Registry No.: 192065-56-8
Formal Name: 4-(8-methyl-9H-1,3-dioxolo[4,5-h]
[2,3]benzodiazepin-5-yl)-benzenamine,
monohydrochloride
MF: C₁₇H₁₅N₃O₂ • HCl
FW: 329.8
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

GYKI 52466 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the GYKI 52466 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. GYKI 52466 (hydrochloride) is soluble in the organic solvent methanol at a concentration of approximately 1 mg/ml.

Description

GYKI 52466 is an allosteric AMPA receptor antagonist.¹ It selectively inhibits AMPA-induced inward currents (IC₅₀ = 7.5 μM) over NMDA- or GABA-induced inward currents in primary rat hippocampal neurons at 50 μM but also inhibits kainate-induced inward currents in the same cells (IC₅₀ = 11 μM).² GYKI 52466 (10 μM) reduces the amplitude of spontaneous excitatory postsynaptic currents (EPSCs) in the same cells. It increases the latency to seizure onset and reduces mortality in a rat model of generalized tonic-clonic seizures induced by 4-aminopyridine (4-AP; Item No. 18511) when administered at doses of 25 and 50 mg/kg.¹ GYKI 52466 (30 mg/kg) prevents neuronal damage in the CA1 region of the hippocampus in a rat model of global ischemia-reperfusion injury induced by four-vessel occlusion.³

References

1. Weiczner, R., Krisztin-Péva, B., and Mihály, A. Blockade of AMPA-receptors attenuates 4-aminopyridine seizures, decreases the activation of inhibitory neurons but is ineffective against seizure-related astrocytic swelling. *Epilepsy Res.* **78**(1), 22-32 (2008).
2. Donevan, S.D. and Rogawski, M.A. GYKI 52466, a 2,3-benzodiazepine, is a highly selective, noncompetitive antagonist of AMPA/kainate receptor responses. *Neuron* **10**(1), 51-59 (1993).
3. Block, F., Schmitt, W., and Schwarz, M. Pretreatment but not posttreatment with GYKI 52466 reduces functional deficits and neuronal damage after global ischemia in rats. *J. Neurol. Sci.* **139**(2), 167-172 (1996).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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