**Overview**

**Product name**
GYKI 52466, Selective non-competitive AMPA antagonist

**Description**
Selective non-competitive AMPA antagonist

**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). Skeletal muscle relaxant, orally active anticonvulsant, neuroprotective and anxiolytic *in vivo*.

Also available in simple stock solutions ([ab146716](https://www.abcam.com/)) - add 1 ml of water to get an exact, ready-to-use concentration.

**Purity**
> 99%

**CAS Number**
102771-26-6

**Chemical structure**

![Chemical structure of GYKI 52466](image)

**Properties**

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

**Molecular weight**
329.79

**Molecular formula**
C$_{17}$H$_{15}$N$_{3}$O$_{2}$·HCl

**PubChem identifier**
10042240

**Storage instructions**
Store at Room Temperature. Store under desiccating conditions. The product can be stored for up to 12 months.

**Solubility overview**
Soluble in 1eq. HCl to 10mM and in DMSO to 25 mM (with heating)

**Handling**
Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature.
temperature for at least 1 hour.

Need more advice on solubility, usage and handling? Please visit our frequently asked questions (FAQ) page for more details.

SMILES
Cl.Nc1ccc(cc1)C3=NN=C(C(C)Cc2cc4OCOc4cc23

Source
Synthetic

Applications
Our Abpromise guarantee covers the use of ab120336 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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Images

ab96379 staining MEK1 (phospho S298) in SK-N-SH cells treated with GYKI 52466 (ab120336), by ICC/IF. Decrease in MEK1 (phospho S298) expression correlates with increased concentration of GYKI 52466, as described in literature.

The cells were incubated at 37°C for 1h in media containing different concentrations of ab120336 (GYKI 52466) in DMSO, fixed with 4% formaldehyde for 10 minutes at room temperature and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with ab96379 (1/100 dilution) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat anti-rabbit polyclonal antibody (ab96899) at 1/250 dilution was used as the secondary antibody.

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE, NOT FOR USE IN HUMANS"

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