

Product datasheet

MPEP hydrochloride, mGlu₅ antagonist ab120008

27 References 2 Images

Overview

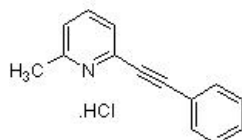
Product name	MPEP hydrochloride, mGlu ₅ antagonist
Description	Potent, selective mGlu ₅ antagonist
Biological description	Subtype selective and potent non-competitive mGlu ₅ antagonist (IC ₅₀ = 36 nM). Central effects following systemic administration <i>in vivo</i> .
Purity	> 99%

Properties

Chemical name 2-Methyl-6-(phenylethynyl)pyridine hydrochloride

Molecular weight 229.71

Chemical structure



Molecular formula C₁₄H₁₁N.HCl

CAS Number 96206-92-7

PubChem identifier 9794588

Storage instructions Store at +4°C. Store under desiccating conditions. The product can be stored for up to 12 months.

Solubility overview Soluble in water to 5 mM, in ethanol to 100 mM and in DMSO to 100 mM

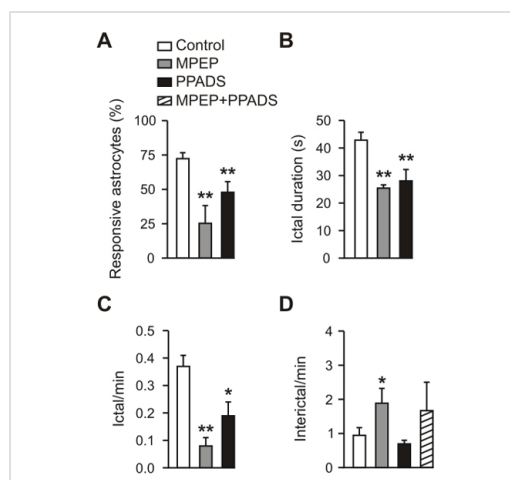
Handling Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature 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-].Cc2cccc(C#Cc1cccc1)[nH+]

Source Synthetic

Images

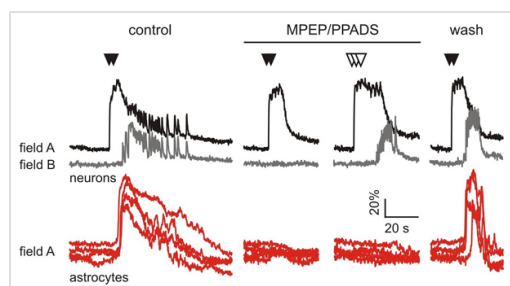


Functional Studies - MPEP hydrochloride

(ab120008)

Image from Gómez-Gonzalo Met al., PLoS Biol. 2010;8(4):e1000352. Fig 2.; doi: 10.1371/journal.pbio.1000352.

Astrocyte Ca²⁺ signal inhibition does not affect interictal discharges. (A–D) Mean percentage of astrocytes activated by the ictal discharges (A), mean duration (B) and frequency (C) of the ictal discharge, and mean frequency of interictal discharges (D) under different experimental conditions in EC slice preparations. Controls (n=16), MPEP (ab120008) (n=7), PPADS (ab120009) (n=9), and MPEP+PPADS (n=3). A single asterisk (*) indicates $p < 0.05$; double asterisks (**), $p < 0.01$.



Functional Studies - MPEP hydrochloride

(ab120008)

Image from Gómez-Gonzalo Met al., PLoS Biol. 2010;8(4):e1000352. Fig 6(A); doi: 10.1371/journal.pbio.1000352.

Ca²⁺ signal from a field A neuron, a field B neuron, and field A astrocytes in response to repetitive episodes of NMDA stimulation (black arrowheads). The NMDA stimulation that evoked an ictal discharge became ineffective after blocking the astrocyte response by bath perfusion with MPEP (ab120008) and PPADS (ab120009). An ictal discharge could be recovered by increasing the number of NMDA puffs (white arrowheads). A double NMDA pulse evoked both astrocyte activation and the ictal discharge after inhibitor washout.

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