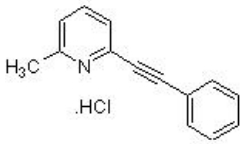
abcam

Product datasheet

MPEP hydrochloride, mGlu5 antagonist ab120008

34 References 画像数 4

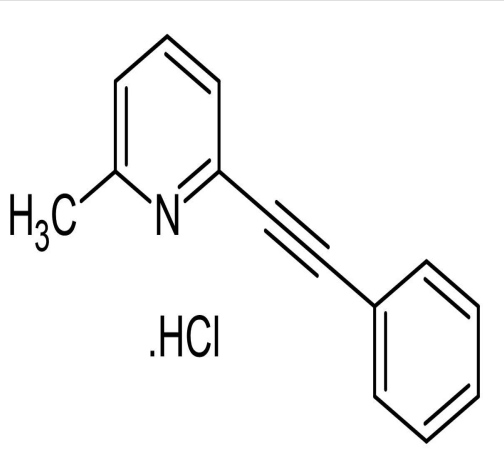
製品の概要

製品名	MPEP hydrochloride, mGlu5 antagonist
製品の詳細	Potent, selective $mGlu_5$ antagonist
生理活性の詳細	Subtype selective and potent non-competitive $mGlu_5$ antagonist (IC_{50} = 36 nM). Central effects following systemic administration *in vivo*.
精製度	> 99%
CAS 番号	219911-35-0
構造式	

製品の特性

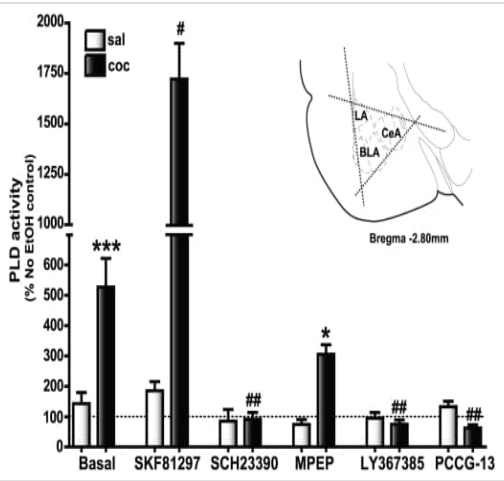
体系名	2-Methyl-6-(phenylethynyl)pyridine hydrochloride
分子量	229.71
分子式	$C_{14}H_{11}N.HCl$
PubChem 登録番号	9794588
保存方法	Store at +4°C. Store under desiccating conditions. The product can be stored for up to 12 months.
溶解性	Soluble in water to 5 mM, in ethanol to 100 mM and in DMSO to 100 mM
使用に関する注意	Wherever 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 線形表記	[Cl-].Cc2cccc(C#Cc1ccccc1)[nH+]2
由来	Synthetic

画像



Chemical Structure - MPEP hydrochloride, $mGlu_5$ antagonist (ab120008)

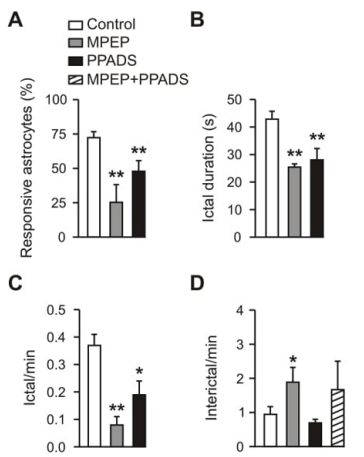
2D chemical structure image of ab120008, MPEP hydrochloride, mGlu5 antagonist



Functional Studies - MPEP hydrochloride, $mGlu_5$ antagonist (ab120008)

Image from Krishnan B, et al. Plos One, 6(9), e25639. Fig 7,; doi: 10.1371/journal.pone.0025639

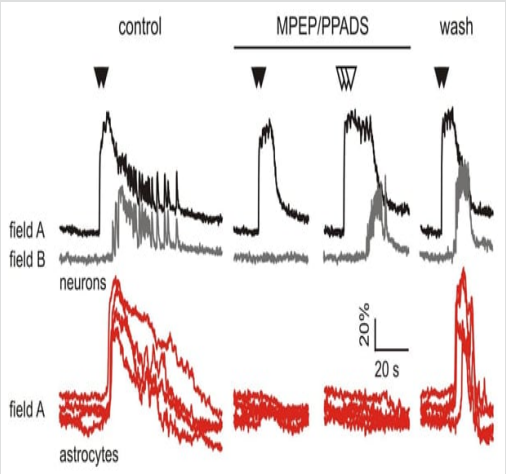
Basal PLD activity is strongly stimulated by the D1/5R agonist and blocked by the D1/5R, mGluR5, mGluR1, and the PLD-linked mGluR antagonists in the amygdala of cocaine CPP animals.
The dotted line indicates PLD activity associated with control slices (no EtOH added) which was determined for each animal and used to calculate the change in PLD activity levels with EtOH and/or drug application.



Functional Studies - MPEP hydrochloride, $mGlu_5$ antagonist (ab120008)

Image from Gómez-Gonzalo M et al., PLoS Biol. 2010;8(4):e1000352. Fig 2.; doi: 10.1371/journal.pbio.1000352. Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

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, $mGlu_5$ antagonist (ab120008)

Image from Gómez-Gonzalo M et 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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