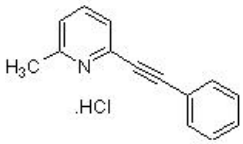
abcam

Product datasheet

MPEP hydrochloride, mGlu5 antagonist ab120008

34 References 4 图像

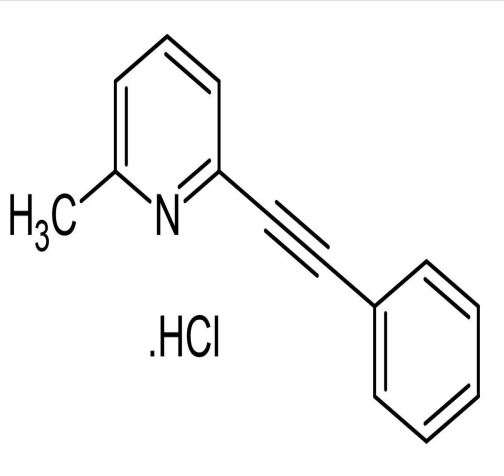
概述

产品名称	MPEP hydrochloride，mGlu5拮抗剂
描述	Potent，selective $mGlu_5$拮抗剂
生物学描述	Subtype selective and potent non-competitive $mGlu_5$ antagonist (IC_{50} = 36 nM). Central effects following systemic administration *in vivo*.
纯度	> 99%
CAS编号	219911-35-0
化学结构	

性能

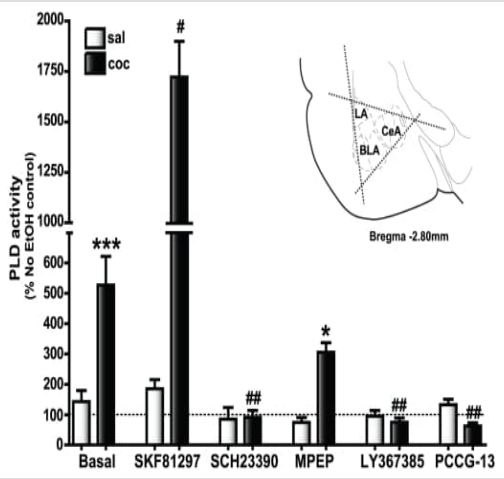
化学名称	2-Methyl-6-(phenylethynyl)pyridine hydrochloride
分子量	229.71
分子式	$C_{14}H_{11}N.HCl$
PubChem识别号	9794588
存放说明	Store at +4°C. Store under desiccating conditions. The product can be stored for up to 12 months.
溶解度概述	Soluble in water to 5 mM, in ethanol to 100 mM and in DMSO to 100 mM
处理	Wherever possible, 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#Cc1ccccc1)[nH+]2
来源	Synthetic

图片



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

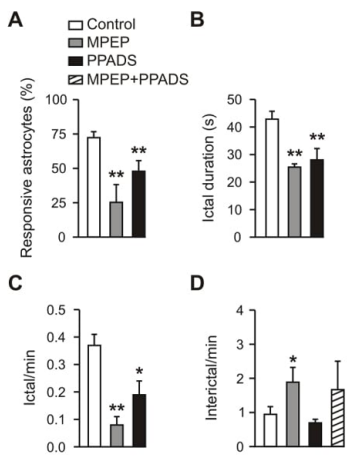
Chemical Structure - MPEP hydrochloride, $mGlu_5$ antagonist (ab120008)



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)

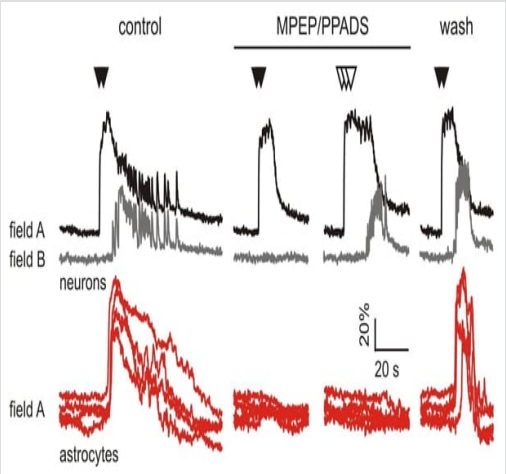
Image from Krishnan B, et al. Plos One, 6(9), e25639. Fig 7,; doi: 10.1371/journal.pone.0025639



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.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES, NOT FOR USE IN HUMANS"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.cn/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors
- Abcam biochemicals are novel compounds and we have not tested their biological activity in house. Please use the literature to identify how to use these products effectively. If you require further assistance please contact the scientific support team