

## Catalog # 10-4007 MPEP HCI CAS# 219911-35-0 2-Methyl-6-(2-phenylethynyl)pyridine hydrochloride Lot # FBS1048



MPEP is a potent ( $IC_{50} = 36$  nM for quisqualate-stimulated phosphoinositide hydrolysis) and selective (over mGlu1b, -2, -3, -4a, -6, -7b, and -8a) antagonist of the metabotropic glutamate receptor subtype 5 (mGlu5).<sup>1</sup> It is a positive allosteric modulator of human mGlu4.<sup>2</sup> MPEP inhibition of mGlu5 has been studied for the treatment of many CNS disorders including Parkinson's<sup>3,4</sup>, Fragile X syndrome<sup>5</sup>, and addiction<sup>6</sup>.

- 1) Gasparini et al. (1999) 2-Methyl-6-(phenylethynyl)-pyridine (MPEP), a potent, selective, and systemically active mGlu5 receptor antagonist; Neuropharmacology **38** 1493
- 2) Mathiesen et al. (2003) Positive allosteric modulation of the human metabotropic glutamate receptor 4(hmGlu4) by SIB-1893 and MPEP; Br. J. Pharmacol. **138** 1026
- 3) Morin *et al.* (2010) Effect of metabotropic glutamate receptor type 5 antagonists MPEP and MTEP in parkinsonian monkeys; Neuropharmacology **58** 981
- 4) Morin et al. (2013) MPEP, an mGlu5 receptor antagonist, reduces the development of L-DOPA-induced motor complications in de novo parkinsonian monkeys: biochemical correlates; Neuropharmacology **66** 355
- 5) Michalon et al. (2012) Chronic pharmacological mGlu5 inhibition corrects fragile X in adult mice; Neuron 74 49
- 6) Mihov and Hasler (2016) *Negative Allosteric Modulators of Metabotropic Glutamate Receptors Subtype 5 in Addiction: a Therapeutic Window;* Int. J. Neuropsychopharmacol. **19** pyw002

## PHYSICAL DATA

Molecular Weight:	229.71
Molecular Formula:	C14H11N·HCI
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (20 mg/ml) and ethanol (20 mg/mL)
Physical Description:	White to very pale yellow solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in
	DMSO or ethanol may be stored at -20°C for up to 1 month.

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