

Product Name: MTEP hydrochloride

Catalog No.: 2921

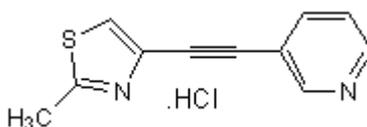
Batch No.: 3

CAS Number: 1186195-60-7

IUPAC Name: 3-((2-Methyl-1,3-thiazol-4-yl)ethynyl)pyridine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₈N₂S.HCl
Batch Molecular Weight: 236.72
Physical Appearance: White solid
Solubility: water to 100 mM
 DMSO to 100 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.3 (Ethyl acetate:Petroleum ether [2:3])
HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	55.81	3.83	11.83
Found	55.54	3.87	11.58

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Potent, selective and non-competitive mGlu₅ antagonist (IC₅₀ = 5 nM in Ca²⁺-flux assay; K_i = 16 nM). Displays anxiolytic activity in vivo and is orally active.

Physical and Chemical Properties:

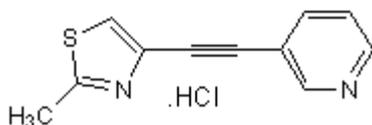
Batch Molecular Formula: C₁₁H₈N₂S.HCl

Batch Molecular Weight: 236.72

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at +4°C

Solubility & Usage Info:

water to 100 mM

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Brodkin et al (2002) Reduced stress-induced hyperthermia in mGluR5 knockout mice. *Eur.J.Neurosci.* **16** 2241. PMID: 12473093.

Cosford et al (2003) 3-[(2-Methyl-1,3-thiazol-4-yl)ethynyl]-pyridine: A potent and highly selective metabotropic glutamate subtype 5 receptor antagonist with anxiolytic activity. *J.Med.Chem.* **46** 204. PMID: 12519057.

Roppe et al (2004) 5-[(2-Methyl-1,3-thiazol-4-yl)ethynyl]-2,3'-bipyridine: a highly potent, orally active metabotropic glutamate subtype 5 (mGlu5) receptor antagonist with anxiolytic activity. *Bioorg.Med.Chem.Lett.* **14** 3993. PMID: 15225713.

Klodzinska et al (2004) Anxiolytic-like effects of MTEP, a potent and selective mGlu5 receptor agonist does not involve GABA_A signaling. *Neuropharmacology* **47** 342. PMID: 15275823.

Bradbury et al (2005) Metabotropic glutamate receptor mGlu5 is a mediator of appetite and energy balance in rats and mice. *J.Pharmacol.Exp.Ther.* **313** 395. PMID: 15590770.

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