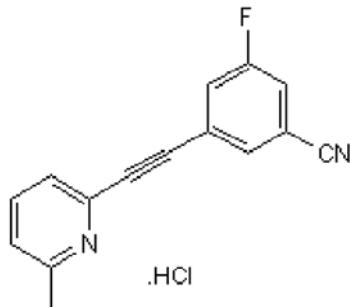


Certificate of Analysiswww.tocris.com**Product Name:** MFZ 10-7**Catalog No.:** 4438**Batch No.:** 1

CAS Number: 1779796-36-9

IUPAC Name: 3-Fluoro-5-[2-(6-methyl-2-pyridinyl)ethynyl]benzonitrile hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES**Batch Molecular Formula:** C₁₅H₉FN₂.HCl.1/4H₂O**Batch Molecular Weight:** 277.2**Physical Appearance:** Off-white solid**Solubility:** DMSO to 100 mM
ethanol to 100 mM**Storage:** Store at +4°C**Batch Molecular Structure:****2. ANALYTICAL DATA****HPLC:** Shows 99.9% purity**¹H NMR:** Consistent with structure**Mass Spectrum:** Consistent with structure**Microanalysis:** Carbon Hydrogen Nitrogen

Theoretical 64.99 3.82 10.11

Found 64.85 3.79 10.28

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of Worldwww.tocris.com/distributors

Tel: +1 612 379 2956

Product Information

www.tocris.com

Product Name: MFZ 10-7

Catalog No.: 4438

Batch No.: 1

CAS Number: 1779796-36-9

IUPAC Name: 3-Fluoro-5-[2-(6-methyl-2-pyridinyl)ethynyl]benzonitrile hydrochloride

Description:

High affinity negative allosteric modulator at the mGlu₅ receptor ($K_i = 0.67$ nM). Potently inhibits mGlu₅ glutamate-mediated calcium mobilization ($IC_{50} = 1.22$ nM). Inhibits cocaine-taking and cocaine-seeking behavior in rats.

Physical and Chemical Properties:

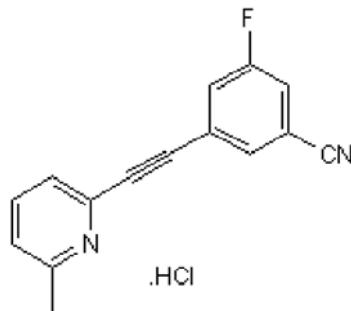
Batch Molecular Formula: C₁₅H₉FN₂.HCl.½H₂O

Batch Molecular Weight: 277.2

Physical Appearance: Off-white solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM
ethanol 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:

Keck et al (2014) A novel mGluR5 antagonist, MFZ 10-7, inhibits cocaine-taking and cocaine-seeking behavior in rats. *Addict.Biol.* **19** 195. PMID: 24001208.

Keck et al (2012) Metabotropic glutamate receptor 5 negative allosteric modulators as novel tools for in vivo investigation. *ACS Med.Chem.Lett.* **3** 544. PMID: 22924094.

Alagille et al (2011) Potent mGluR5 antagonists: pyridyl and thiazolyl-ethynyl-3,5-disubstituted-phenyl series. *Bioorg.Med.Chem.Lett.* **21** 3243. PMID: 21546249.

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956