

**Product Name:** LY 2033298

**Catalog No.:** 7027

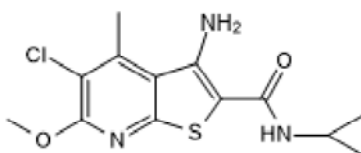
**Batch No.:** 1

CAS Number: 886047-13-8

IUPAC Name: 3-Amino-5-chloro-*N*-cyclopropyl-6-methoxy-4-methylthieno[2,3-*b*]pyridine-2-carboxamide

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>13</sub>H<sub>14</sub>ClN<sub>3</sub>O<sub>2</sub>S  
**Batch Molecular Weight:** 311.79  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
ethanol to 20 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.8% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	50.08	4.53	13.48
Found	49.99	4.52	13.45

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

**Product Name:** LY 2033298

**Catalog No.:** 7027

**Batch No.:** 1

CAS Number: 886047-13-8

IUPAC Name: 3-Amino-5-chloro-*N*-cyclopropyl-6-methoxy-4-methylthieno[2,3-*b*]pyridine-2-carboxamide

**Description:**

Selective positive allosteric modulator of M<sub>4</sub> receptor (K<sub>B</sub> = 200 nM, α = 35); increases the potency of acetylcholine by 40-fold. Exhibits no effect at hM<sub>1/3/5</sub> receptors and a small effect at hM<sub>2</sub> (K<sub>B</sub> = 1 μM α = 3.7). Potentiates other full and partial orthosteric agonists, including Carbachol, Oxotremorine-M, and McN-A343. Does not affect binding of antagonist NMS. Active in vivo. Antipsychotic. α indicates the degree of allosteric enhancement when both orthosteric and allosteric sites are occupied (derived from the allosteric ternary complex model). Please see product datasheet on www.tocris.com for full description.

**Physical and Chemical Properties:**

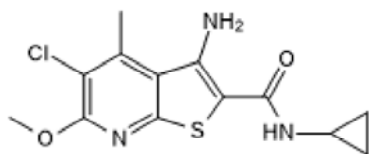
Batch Molecular Formula: C<sub>13</sub>H<sub>14</sub>ClN<sub>3</sub>O<sub>2</sub>S

Batch Molecular Weight: 311.79

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

**Huynh et al** (2015) Synthesis and pharmacological evaluation of M<sub>4</sub> muscarinic receptor positive allosteric modulators derived from VU10004. *ACS Chem. Neurosci.* **6** 838. PMID: 25857219.

**Leach et al** (2010) Molecular mechanisms of action and *in vivo* validation of an M<sub>4</sub> muscarinic acetylcholine receptor allosteric modulator with potential antipsychotic properties. *Neuropsychopharmacology* **35** 855. PMID: 19940843.

**Chan et al** (2008) Allosteric modulation of the muscarinic M<sub>4</sub> receptor as an approach to treating schizophrenia. *Proc.Natl.Acad.Sci.U.S.A.* **105** 10978. PMID: 18678919.

**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 20 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.

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