

Product Name: VU 10010

Catalog No.: 3141

Batch No.: 1

CAS Number: 633283-39-3

IUPAC Name: 3-Amino-*N*-[(4-chlorophenyl)methyl]-4,6-dimethylthieno[2,3-*b*]pyridine-2-carboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₆ClN₃OS·½H₂O

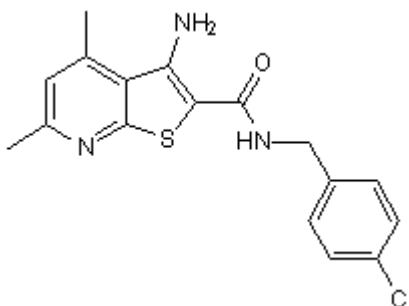
Batch Molecular Weight: 354.86

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM
ethanol to 10 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.3% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	57.54	4.83	11.84
Found	57.4	4.96	11.84

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Description:

Selective allosteric potentiator of M₄ acetylcholine receptors (EC₅₀ values are 33 and 0.7 nM for ACh in the absence and presence of VU10010 respectively). Binds to an allosteric site on the receptor increasing affinity for ACh and coupling to G-proteins.

Physical and Chemical Properties:

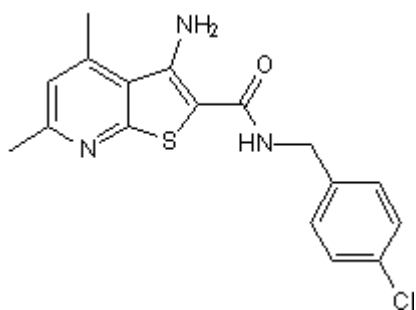
Batch Molecular Formula: C₁₇H₁₆ClN₃OS.½H₂O

Batch Molecular Weight: 354.86

Physical Appearance: Yellow solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 10 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:

Shirey et al (2008) An allosteric potentiator of M₄ mAChR modulates hippocampal synaptic transmission. *Nat.Chem.Biol.* **4** 42. PMID: 18059262.

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