

Certificate of Analysis

Product Name: UCL 2077

Catalog No.: 2661

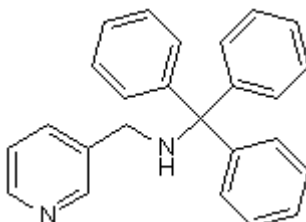
Batch No.: 1

CAS Number: 918311-87-2

IUPAC Name: *N*-Trityl-3-pyridinemethanamine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₅H₂₂N₂
Batch Molecular Weight: 350.46
Physical Appearance: White solid
Solubility: DMSO to 50 mM
ethanol to 25 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.5 (Ethyl acetate)
HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	85.68	6.33	7.99
Found	85.61	6.31	7.97

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

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CAS Number: 918311-87-2

IUPAC Name: *N*-Trityl-3-pyridinemethanamine

Description:

Slow afterhyperpolarization (sAHP) channel blocker; reduces sAHP in hippocampal slice preparations. Displays no effect on Ca²⁺ currents or the time course of sAHP/s_{AHP}. Exhibits potent inhibition of KCNQ1 and KCNQ2, but differential effects at other KCNQs. Rescues memory retrieval in dopamine β-hydroxylase knockout mice.

Physical and Chemical Properties:

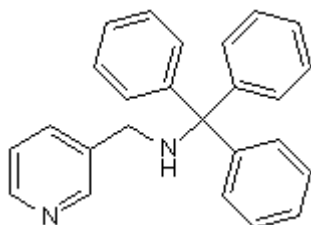
Batch Molecular Formula: C₂₅H₂₂N₂

Batch Molecular Weight: 350.46

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Shah et al (2006) Enhancement of hippocampal pyramidal cell excitability by the novel selective slow-afterhyperpolarization channel blocker 3-(triphenylmethylaminomethyl)pyridine (UCL2077). *Mol.Pharmacol.* **70** 1494. PMID: 16877678.

Soh and Tzingounis (2010) The specific slow afterhyperpolarization inhibitor UCL2077 is a subtype-selective blocker of the epilepsy associated KCNQ channels. *Mol.Pharmacol.* **78** 1088. PMID: 20843955.

Zhang et al (2013) The slow afterhyperpolarization: a target of β1-adrenergic signaling in hippocampus-dependent memory retrieval. *J.Neurosci.* **33** 5006. PMID: 23486971.

Storage: Store at RT

Solubility & Usage Info:

DMSO to 50 mM

ethanol to 25 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.

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