TOCRIS bioscience

Print Date: Apr 28th 2015

Certificate of Analysis

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Product Name: **M8 B hydrochloride** **Catalog No.: 5324** **Batch No.: 1**

CAS Number: 883976-12-3

IUPAC Name: *N*-(2-Aminoethyl)-*N*-[[3-methoxy-4-(phenylmethoxy)phenyl]methyl]-2-thiophenecarboxamide hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{22}H_{24}N_2O_3S.HCl.½H_2O$

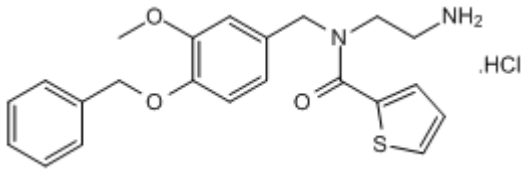
Batch Molecular Weight: 441.97

Physical Appearance: White solid

Solubility: water to 10 mM with sonication
DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.2 (Dichloromethane:Methanol [9:1])

HPLC: Shows 99.8% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	59.79	5.93	6.34
Found	60	5.9	6.39

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Description:

Potent and selective TRPM8 channel blocker. Blocks cold- and icilin-induced TRPM8 activation in vitro (IC_{50} values are 7.8 and 26.9 nM respectively). Exhibits no effect at other TRP channels (IC_{50} > 20 µM). Reduces body temperature in vivo.

Physical and Chemical Properties:

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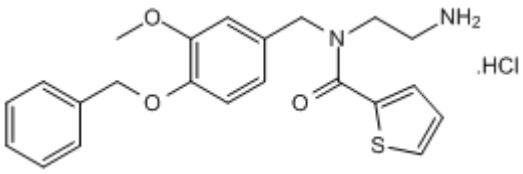
Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

water to 10 mM with sonication
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:

Almeida *et al* (2012) Pharmacological blockade of the cold receptor TRPM8 attenuates autonomic and behavioral cold defenses and decreases deep body temperature. J.Neurosci. ***32*** 2086. PMID: 22323721.