TOCRIS
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Print Date: Jan 14th 2016

Certificate of Analysis

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Product Name: **ARL 17477 dihydrochloride** **Catalog No.: 3319** **Batch No.: 1**

CAS Number: 866914-87-6

IUPAC Name: *N*-[4-[2-[[(3-Chlorophenyl)methyl]amino]ethyl]phenyl]-2-thiophenecarboxamide dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{20}H_{20}ClN_3S.2HCl$

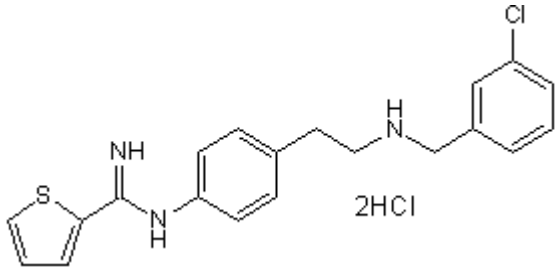
Batch Molecular Weight: 442.83

Physical Appearance: White solid

Solubility: water to 50 mM
DMSO to 100 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.25	5.01	9.49
Found	53.97	5.07	9.28

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CAS Number: 866914-87-6

IUPAC Name: *N*-[4-[2-[[(3-Chlorophenyl)methyl]amino]ethyl]phenyl]-2-thiophenecarboxamide dihydrochloride

Description:

Selective neuronal nitrogen oxide synthase (nNOS) inhibitor (IC_{50} values are 1 and 17 μM for nNOS and endothelial NOS respectively). Reduces ischemic cell damage after middle cerebral artery (MCA) occlusion in rats. Displays a synergistic neuroprotective effect when combined with either an NMDA or AMPA receptor antagonist.

Physical and Chemical Properties:

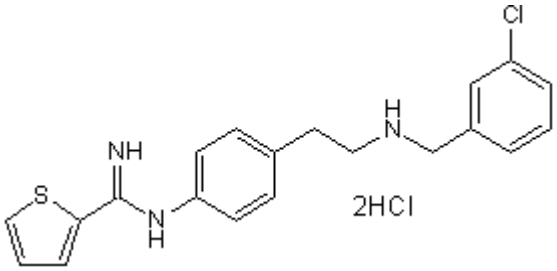
Batch Molecular Formula: $C_{20}H_{20}ClN_3S.2HCl$

Batch Molecular Weight: 442.83

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water to 50 mM
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:

Zhang *et al* (1996) ARL 17477, a potent and selective neuronal NOS inhibitor decreases infarct volume after transient middle cerebral artery occlusion in rats. J.Cereb.Flow Metab. ***16*** 599.

Hicks *et al* (1999) Synergistic neuroprotective effects by combining an NMDA or AMPA receptor antagonist with nitric oxide synthase inhibitors in global cerebral ischaemia. Eur.J.Pharmacol. ***381*** 113. PMID: 10554878.

O'Neill *et al* (2000) ARL 17477, a selective nitric oxide synthase inhibitor, with neuroprotective effects in animal models of global and focal cerebral ischaemia. Brain Res. ***871*** 234. PMID: 10899290.