TOCRIS bioscience

Print Date: Aug 15th 2014

Certificate of Analysis

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Product Name: TRAM 39 **Catalog No.: 4952** **Batch No.: 1**

CAS Number: 197525-99-8

IUPAC Name: 2-Chloro-α,α-diphenylbenzeneacetonitrile

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{20}H_{14}ClN$

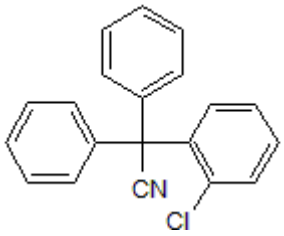
Batch Molecular Weight: 303.78

Physical Appearance: Yellow solid

Solubility: DMSO to 50 mM
ethanol to 10 mM with gentle warming

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.55 (Ether:Petroleum ether [10:1])

HPLC: Shows >99.7% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	79.07	4.65	4.61
Found	78.91	4.58	4.71

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Description:

Potent intermediate conductance Ca^{2+}-activated K^+ channel ($K_{Ca}3.1$) blocker (K_d = 60 nM). Has no effect on cytochrome p450 activity. Inhibits I-EBIO-stimulated increases in rat artery membrane potential ex vivo. Also diminishes LPS-induced cryptidin (mammalian α-defensin) release from paneth cells in vitro.

Physical and Chemical Properties:

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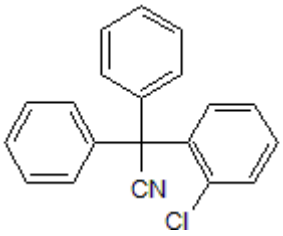
Batch Molecular Weight: 303.78

Physical Appearance: Yellow solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 50 mM
ethanol to 10 mM with gentle warming

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:

Wulff *et al* (2000) Design of a potent and selective inhibitor of the intermediate-conductance Ca^{2+}-activated K+ channel, $IK_{Ca}1$: a potential immunosuppressant. Proc.Natl.Acad.Sci.U.S.A. ***97*** 8151. PMID: 10884437.

Ayabe *et al* (2002) Modulation of mouse Paneth cell alpha-defensin secretion by mIKCa1, a Ca^{2+}-activated, intermediate conductance potassium channel. J.Biol.Chem. ***277*** 3793. PMID: 11724775.

Burnham *et al* (2006) Impaired small-conductance Ca^{2+}-activated K^+ channel-dependent EDHF responses in Type II diabetic ZDF rats. Br.J.Pharmacol. ***148*** 434. PMID: 16682967.