Print Date: Aug 30th 2012

Certificate of Analysis

www.tocris.com

Product Name: Terfenadine **Catalog No.: 3948** **Batch No.: 1**

CAS Number: 50679-08-8 EC Number: 256-710-8

IUPAC Name: α-[4-(1,1-Dimethylethyl)phenyl]-4-(hydroxydiphenylmethyl)-1-piperidinebutanol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{32}H_{41}NO_2 \cdot ¼H_2O$

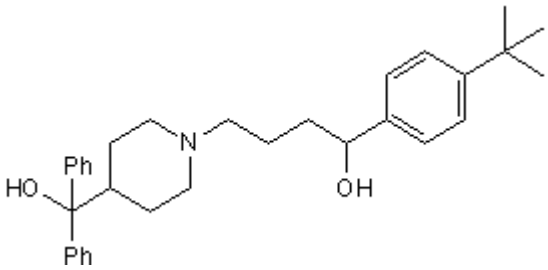
Batch Molecular Weight: 476.17

Physical Appearance: white solid

Solubility: DMSO to 100 mM
ethanol to 25 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.7% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	80.72	8.78	2.94
Found	80.99	8.79	3.06

Product Information

Product Name: Terfenadine **Catalog No.: 3948** **Batch No.: 1**

CAS Number: 50679-08-8 EC Number: 256-710-8

IUPAC Name: α-[4-(1,1-Dimethylethyl)phenyl]-4-(hydroxydiphenylmethyl)-1-piperidinebutanol

Description:

Histamine H_1 receptor antagonist. Also blocks $K_V11.1$ (hERG) and $K_{ir}6$ (K_{ATP}) channels (IC_{50} values are 204 nM and 1.2 µM respectively). Inhibits the delayed rectifier K^+ current (I_{Kr}) in guinea pig ventricular myocytes (IC_{50} = 50 nM). Activity prolongs QT and induces Torsades de pointes (TdP); cardiotoxic in vivo.

Physical and Chemical Properties:

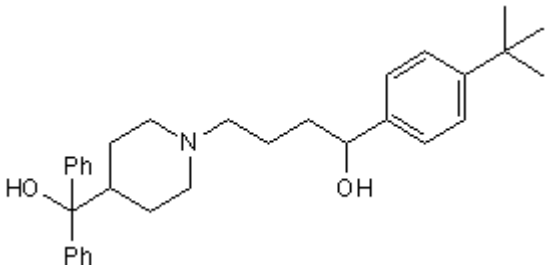
Batch Molecular Formula: $C_{32}H_{41}NO_2.¼H_2O$

Batch Molecular Weight: 476.17

Physical Appearance: white solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 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.

References:

Crumb (2000) Loratadine blockade of K^+ channels in human heart: comparison with terfenadine under physiological conditions. J.Pharmacol.Exp.Ther. ***292*** 261. PMID: 10604956.

Zunkler *et al* (2000) Mechanism of terfenadine block of ATP-sensitive K^+ channels. Br.J.Pharmacol. ***130*** 1571. PMID: 10928959.

Stork *et al* (2007) State dependent dissociation of HERG channel inhibitors. Br.J.Pharmacol. ***151*** 136.