

Certificate of Analysis

Product Name: SKF 89976A hydrochloride

Catalog No.: 1081

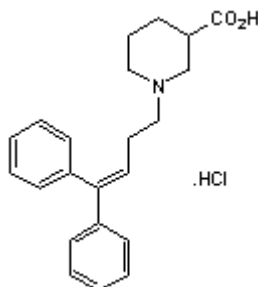
Batch No.: 1

CAS Number: 85375-15-1

IUPAC Name: 1-(4,4-Diphenyl-3-butenyl)-3-piperidinecarboxylic acid hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₂H₂₅NO₂.HCl
Batch Molecular Weight: 371.91
Physical Appearance: White solid
Solubility: water to 100 mM with gentle warming
DMSO to 100 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (Dichloromethane:Methanol:Ammonia soln. [8:2:0:2])
Melting Point: Between 184 - 186°C
HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen	
Theoretical	71.05	7.05	3.77	0 0 0
Found	71.09	7.16	3.9	0 0 0

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

Product Name: SKF 89976A hydrochloride

Catalog No.: 1081

Batch No.: 1

CAS Number: 85375-15-1

IUPAC Name: 1-(4,4-Diphenyl-3-butenyl)-3-piperidinecarboxylic acid hydrochloride

Description:

A potent GABA uptake inhibitor, selective for GAT-1 (IC₅₀ values are 0.13, 550, 944 and 7210 μM for hGAT-1, rGAT-2, hGAT-3 and hBGT-1 respectively). Inhibits transport current competitively (K_i = 7 μM) and transmitter-gated current non-competitively (K_i = 0.03 nM). Able to pass the blood-brain barrier after systemic administration and is active in vivo.

Physical and Chemical Properties:

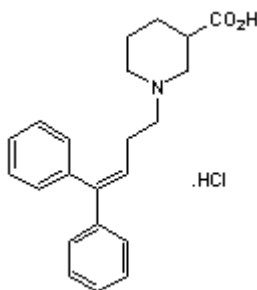
Batch Molecular Formula: C₂₂H₂₅NO₂.HCl

Batch Molecular Weight: 371.91

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at +4°C

Solubility & Usage Info:

water to 100 mM with gentle warming
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:

Ali et al (1985) Orally active and potent inhibitors of γ-aminobutyric acid. *J.Med.Chem.* **28** 653. PMID: 2985785.

Murali Dha (1996) On the bioactive conformation of the GABA uptake inhibitor SK&F 89976-A. *Bioorg.Med.Chem.Lett.* **6** 1535.

Krause and Schwarz (2005) Identification and selective inhibition of the channel mode of the neuronal GABA transporter 1. *Mol.Pharmacol.* **68** 1728. PMID: 16150932.

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956