

Product Name: 10-DEBC hydrochloride

Catalog No.: 2558

Batch No.: 1

CAS Number: 925681-41-0

IUPAC Name: 10-[4'-(*N,N*-Diethylamino)butyl]-2-chlorophenoxazine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₂₅N₂OCl.HCl

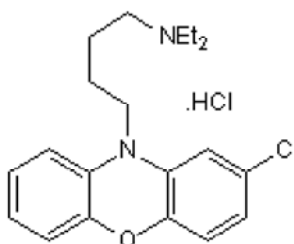
Batch Molecular Weight: 381.34

Physical Appearance: Off-white solid

Solubility: water to 100 mM
DMSO to 100 mM

Storage: Desiccate at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.53 (Chloroform:Methanol:Ammonia soln. [90:9:1])

HPLC: Shows >99.06% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	62.99	6.87	7.35
Found	62.79	6.91	7.11

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

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Description:

Selective inhibitor of Akt/PKB. Inhibits IGF-1-stimulated phosphorylation and activation of Akt (complete inhibition at 2.5 μ M), suppressing downstream activation of mTOR, p70 S6 kinase and S6 ribosomal protein. Shows no activity at PDK1, SGK1 or PI 3-kinase. Inhibits cell growth (IC_{50} ~ 2-6 μ M) and induces apoptosis in rhabdomyosarcoma cells.

Physical and Chemical Properties:

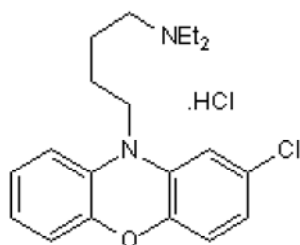
Batch Molecular Formula: C₂₀H₂₅N₂OCl.HCl

Batch Molecular Weight: 381.34

Physical Appearance: Off-white solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Thimmaiah et al (2005) Identification of *N*¹⁰-substituted phenoxazines as potent and specific inhibitors of Akt signaling. *J.Biol.Chem.* **36** 31924.

Thimmaiah et al (1992) Synthesis and chemical characterization of N-substituted phenoxazines directed toward reversing vinca alkaloid resistance in multidrug-resistant cancer cells. *J.Med.Chem.* **35** 3358. PMID: 1527786.

Storage: Desiccate at +4°C

Solubility & Usage Info:

water to 100 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.

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North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

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Europe Middle East Africa

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Tel:+1 612 379 2956