bio-techne
TOCRIS

Print Date: Jan 13th 2025

Certificate of Analysis

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Product Name: **Zosuquidar trihydrochloride** **Catalog No.: 5456** **Batch No.: 1**

CAS Number: 167465-36-3

IUPAC Name: (α*R*)-4-[(1aα,6α,10bα)-1,1-Difluoro-1,1a,6,10b-tetrahydrodibenzo[*a*,*e*]cyclopropa[*c*]cycloheptен-6-yl]-α-[(5-quinolinyloxy)methyl]-1-piperazineethanol trihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{32}H_{31}F_2N_3O_2.3HCl.4½H_2O$

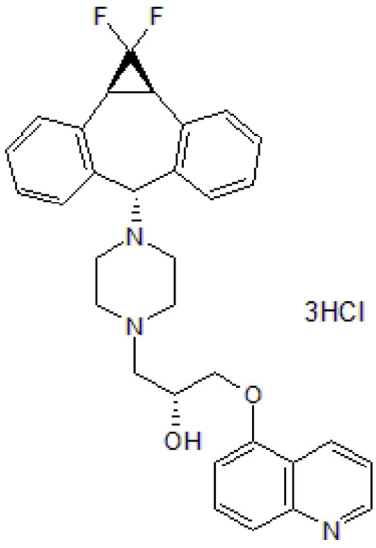
Batch Molecular Weight: 718.06

Physical Appearance: White solid

Solubility: DMSO to 50 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.3% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	53.53	6.04	5.85
Found	53.26	5.88	5.83

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

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Description:

Zosuquidar trihydrochloride is a high affinity P-glycoprotein (P-gp) inhibitor (K_d = 79 nM). Restores doxorubicin (Cat. No. 2252) sensitivity in P-gp-expressing multidrug (MDR) resistant cancer cell lines. Also potentiates antitumor efficacy of taxol (Cat. No. 1097) in a MDR human non-small cell lung carcinoma xenograft mouse model.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{32}H_{31}F_2N_3O_2.3HCl.4½H_2O$

Batch Molecular Weight: 718.06

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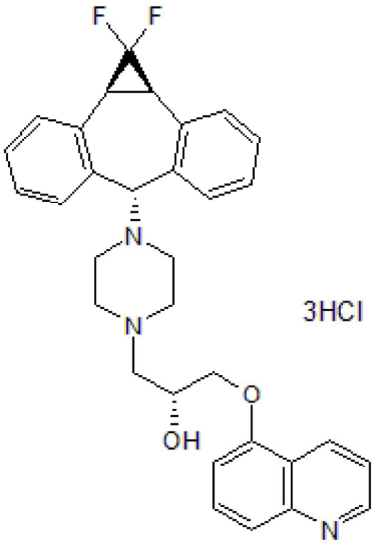
Minimum Purity: ≥97%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 50 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Dantzig *et al* (1999) Selectivity of the multidrug resistance modulator, LY335979, for P-glycoprotein and effect on cytochrome P-450 activities. J.Pharmacol.Exp.Ther. ***290*** 854. PMID: 10411602.

Dantzig *et al* (1996) Reversal of P-glycoprotein-mediated multidrug resistance by a potent cyclopropyldibenzosuberane modulator, LY335979. Cancer Res. ***56*** 4171. PMID: 8797588.