TOCRIS
a bio-techne brand

Print Date: Jan 8th 2016

Certificate of Analysis

www.tocris.com

Product Name: **Chelerythrine chloride** **Catalog No.: 1330** **Batch No.: 8**

CAS Number: 3895-92-9 EC Number: 251-930-0

IUPAC Name: 1,2-Dimethoxy-12-methyl[1,3]benzodioxolo[5,6-*c*]phenanthridinium chloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{21}H_{18}ClNO_4$

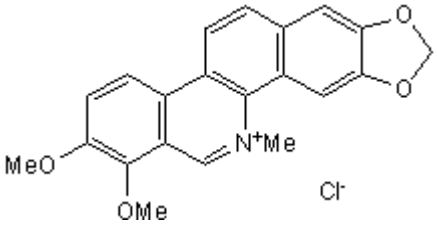
Batch Molecular Weight: 383.83

Physical Appearance: Yellow solid

Solubility: water to 10 mM
DMSO to 10 mM

Storage: Desiccate at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: Between 206 - 208°C

HPLC: Shows >99.7% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	64.21	4.87	3.57	9.03
Found	64.36	4.9	3.55	8.98

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Description:

Cell-permeable inhibitor of protein kinase C (IC_{50} = 660 nM); competitive with respect to the phosphate acceptor and non-competitive with respect to ATP. Has a wide range of biological activities, including antiplatelet, anti-inflammatory, antibacterial and antitumor effects. Activates MAPK pathways, independent of PKC inhibition. Inhibits binding of Bcl_{XL} to Bak (IC_{50} = 1.5 µM) or Bad proteins and stimulates apoptosis.

Physical and Chemical Properties:

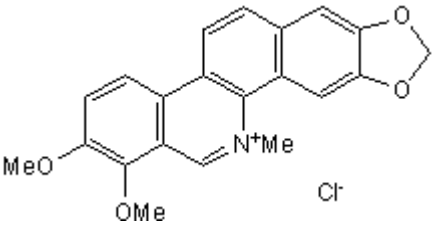
Batch Molecular Formula: $C_{21}H_{18}ClNO_4$

Batch Molecular Weight: 383.83

Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate at -20°C

Solubility & Usage Info:

water to 10 mM
DMSO to 10 mM

This product is supplied in a sealed glass ampoule as a lyophilized solid, please refer to the Tocris catalogue for opening instructions. lyophilized solids can be hard to visualize therefore solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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:

Herbert *et al* (1990) Chelerythrine is a potent and specfic inhibitor of protein kinase C. Biochem.Biophys.Res.Commun. ***172*** 993. PMID: 2244923.

Lee *et al* (1998) Angoline and chelerythrine, benzophenanthridine alkaloids that do not inhibit protein kinase C. J.Biol.Chem. ***273*** 19829. PMID: 9677417.

Yu *et al* (2000) Activation of p38 and c-Jun N-terminal kinase pathways and induction of apoptosis by chelerythrine do not require inhibition of protein kinase C. J.Biol.Chem. ***275*** 9612. PMID: 10734112.

Chan *et al* (2003) Identification of chelerythrine as an inhibitor of BclXL function. J.Biol.Chem. ***278*** 20453. PMID: 12702731.