Certificate of Analysis

Product Name: **ZK 93426 hydrochloride** **Catalog No.: 1996** **Batch No.: 1**

CAS Number: 1216792-30-1

IUPAC Name: 4-Methyl-5-(1-methylethoxy)-9*H*-pyrido[3,4-*b*]indole-3-carboxylic acid ethyl ester hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{18}H_{20}N_2O_3.HCl$

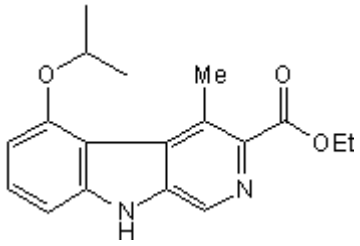
Batch Molecular Weight: 348.82

Physical Appearance: Yellow solid

Solubility: water to 100 mM
DMSO to 50 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.54 (Chloroform:Methanol [9:1])

HPLC: Shows >99.2% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	61.98	6.07	8.03
Found	61.9	6.13	7.79

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Description:

Potent, selective and competitive benzodiazepine receptor antagonist (IC_{50} values are 0.4 and 0.7 nM for inhibition of [^{3}H]-flunitrazepam binding to rat cerebellum and hippocampus respectively). Similar in vivo profile to flumazenil (Ro 15-1788, Cat No. 1328); produces anxiogenic effects in some behavioral tests and anxiolytic effects in others. Orally active.

Physical and Chemical Properties:

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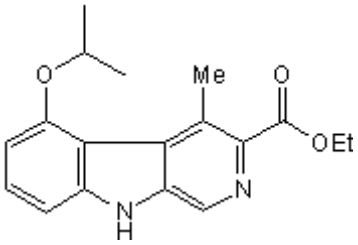
Batch Molecular Weight: 348.82

Physical Appearance: Yellow solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 mM
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. 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:

Jensen *et al* (1984) Evaluation of the β-carboline ZK 93 426 as a benzodiazepine receptor antagonist. Psychopharmacology ***83*** 249. PMID: 6089247.

Corda *et al* (1987) Enhancement of γ-aminobutyric acid binding by the anxiolytic β-carbolines ZK 93423 and ZK 91296. J.Neurochem. ***48*** 1355. PMID: 2881979.

File and Baldwin (1987) Effects of β-carbolines in animal models of anxiety. Brain Res.Bull. ***19*** 293. PMID: 3315125.

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