

Certificate of Analysis

Print Date: Jul 1st 2019

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Product Name: T 0156 hydrochloride Catalog No.: 1676 Batch No.: 1

CAS Number: 324572-93-2

IUPAC Name: 1,2-Dihydro-2-[(2-methyl-4-pyridinyl)methyl]-1-oxo-8-(2-pyrimidinylmethoxy)-4-(3,4,5-trimethoxyphenyl)

-2,7-naphthyridine-3-carboxylic acid methyl ester hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{31}H_{29}N_5O_7.HCl.H_2O$

Batch Molecular Weight: 638.08 **Physical Appearance:** White solid

Solubility: ethanol to 25 mM with gentle warming

DMSO to 25 mM with gentle warming

Storage: Desiccate at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.45$ (Dichloromethane:Methanol [9:1])

Melting Point: At 174°C(dec)

HPLC: Shows 99.6% purity

¹H NMR: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 58.35 5.05 10.98 Found 58.16 5.11 10.75

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Product Information

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Description:

Potent and selective inhibitor of phosphodiesterase type 5 (PDE5); more selective than sildenafil (IC $_{50}$ values are 0.23, 56 and > 63000 nM for T 0156 and 3.6, 29 and > 270 nM for sildenafil at PDE5, PDE6 and PDEs 1 - 4 respectively). Selective over 30 other enzymes and receptors (IC $_{50}$ > 10 mM) and potentiates electrical field stimulation-induced relaxation of isolated rabbit corpus cavernosum. Active in vivo.

Physical and Chemical Properties:

Batch Molecular Formula: C₃₁H₂₉N₅O₇.HCl.H₂O

Batch Molecular Weight: 638.08 Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:

Storage: Desiccate at +4°C

Solubility & Usage Info:

ethanol to 25 mM with gentle warming DMSO to 25 mM with gentle warming

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).

Catalog No.: 1676

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.

Licensing Information:

Sold with the permission of Tanabe Seiyaku Co. Ltd.

References:

Mochida et al (2004) T-0156, a novel phosphodiesterase type 5 inhibitor, and silde. have different pharmacological effects on penile tumescence and electroretinogram in dogs. Eur.J.Pharmacol. **485** 283. PMID: 14757152.

Mochida *et al* (2002) Enzymological and pharmacological profile of T-0156, a potent and selective phosphodiesterase type 5 inhibitor. Eur.J.Pharmacol. **456** 91. PMID: 12450574.

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