



Certificate of Analysis

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Product Name: Raloxifene hydrochloride Catalog No.: 2280 Batch No.: 4

CAS Number: 82640-04-8

IUPAC Name: [6-Hydroxy-2-(4-hydroxyphenyl)benzo[b]thien-3-yl][4-[2-(1-piperidinyl)ethoxy]phenyl]-methanone hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₈H₂₇NO₄S.HCl.

Batch Molecular Weight: 510.04

Physical Appearance: Off White solid
Solubility: DMSO to 50 mM
Storage: Store at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.5% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 65.94 5.53 2.75 Found 65.7 5.49 2.76

Product Information

Print Date: Mar 15th 2024

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IUPAC Name: [6-Hydroxy-2-(4-hydroxyphenyl)benzo[b]thien-3-yl][4-[2-(1-piperidinyl)ethoxy]phenyl]-methanone hydrochloride

Description:

Raloxifene hydrochloride is a selective estrogen receptor modulator (SERM) that binds to ER α and ER β , and tissue-dependently activates or blocks estrogen-induced transcription. Acts as an antiestrogen in breast and uterine tissue, but displays estrogen agonist activity in bone. In D12 rat hypothalamic cells, inhibits progesterone receptor induction by estrogen with an IC $_{50}$ of 1 nM.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₈H₂₇NO₄S.HCl.

Batch Molecular Weight: 510.04 Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at +4°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).

Catalog No.: 2280

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:

Todorova (2011) Tamoxifen and ralox. suppress the proliferation of estrogen receptor-negative cells through inhibition of glutamine uptake. Cancer Chemother. Pharmacol. **67** 285. PMID: 20383709.

Hibner et al (2004) Effects of ralox. hydrochloride on endometrial cancer cells in vitro. Gynecologic Oncol. 93 642.

Bryant (2001) Mechanism of action and preclinical profile of raloxifene, a selective estrogen receptor modulator. Rev.Endocr.Metab.Disord. **2** 129. PMID: 11704975.

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