

Certificate of Analysis

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Product Name: Raloxifene hydrochloride

Catalog No.: 2280

Batch No.: 3

CAS Number: 82640-04-8

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₈H₂₇NO₄S.HCl.

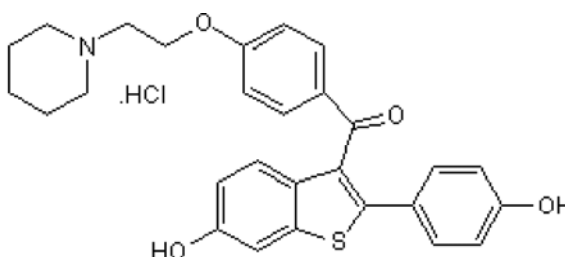
Batch Molecular Weight: 510.04

Physical Appearance: Off White solid

Solubility: DMSO to 50 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.9% 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	5.59	2.74

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

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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 IC₅₀ of 1 nM.

Physical and Chemical Properties:

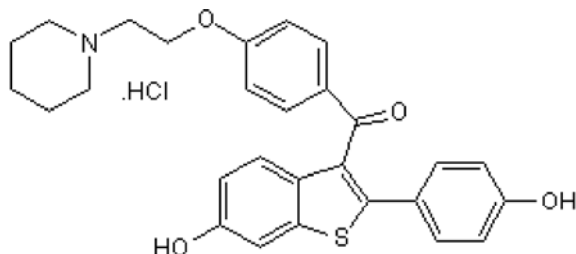
Batch Molecular Formula: C₂₈H₂₇NO₄S.HCl.

Batch Molecular Weight: 510.04

Physical Appearance: Off White solid

Minimum Purity: $\geq 98\%$

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).

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:

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.

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