

**Product Name:** Endoxifen

**Catalog No.:** 3705

**Batch No.:** 2

CAS Number: 110025-28-0

IUPAC Name: (E/Z)-4-[1-[4-[2-(Methylamino)ethoxy]phenyl]-2-phenyl-1-buten-1-yl]-phenol

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>25</sub>H<sub>27</sub>NO<sub>2</sub>·½H<sub>2</sub>O

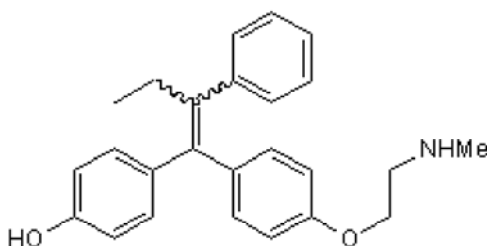
**Batch Molecular Weight:** 382.5

**Physical Appearance:** White solid

**Solubility:** DMSO to 100 mM

**Storage:** Store at +4°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.21 (Dichloromethane-2M NH<sub>3</sub>:Methanol [25:1])

**HPLC:** Shows >99.5% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	78.5	7.38	3.66
Found	78.9	7.31	3.8

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**Description:**

Estrogen receptor  $\alpha$  (ER $\alpha$ ) ligand; potent antiestrogen. Metabolite of tamoxifen (Cat. No. 0999). Primary metabolite responsible for the effectiveness of tamoxifen in ER-positive breast cancer.

**Physical and Chemical Properties:**

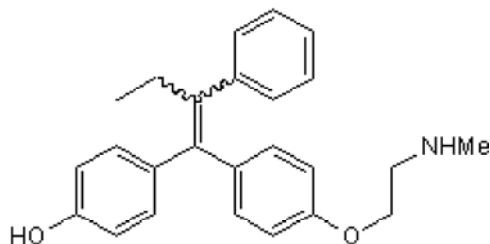
Batch Molecular Formula: C<sub>25</sub>H<sub>27</sub>NO<sub>2</sub>·½H<sub>2</sub>O

Batch Molecular Weight: 382.5

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 100 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:**

**Wu et al** (2011) Estrogen receptor-beta sensitizes breast cancer cells to the anti-estrogenic actions of endoxifen. *Breast Cancer Res.* **13** R27. PMID: 21392396.

**Wu et al** (2009) The tamox. metabolite, endoxifen, is a potent antiestrogen that targets estrogen receptor  $\alpha$  for degradation in breast cancer cells. *Cancer Res.* **69** 1722. PMID: 19244106.

**Lim et al** (2006) Endoxifen, a secondary metabolite of tamoxifen, and 4-OH-tamoxifen induce similar changes in global gene expression patterns in MCF-7 breast cancer cells. *J.Pharmacol.Exp.Ther.* **318** 503. PMID: 16690721.

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