

**Product Name:** Liarozole dihydrochloride

**Catalog No.:** 2705

**Batch No.:** 4

CAS Number: 1883548-96-6

IUPAC Name: 5-[(3-Chlorophenyl)-1*H*-imidazol-1-ylmethyl]-1*H*-benzimidazole dihydrochloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>17</sub>H<sub>13</sub>ClN<sub>4</sub>·2HCl·<sup>3</sup>/<sub>4</sub>H<sub>2</sub>O

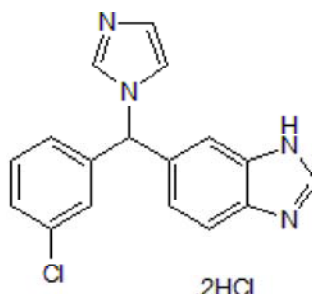
**Batch Molecular Weight:** 395.2

**Physical Appearance:** Beige solid

**Solubility:** DMSO to 100 mM  
water to 100 mM

**Storage:** Desiccate at RT

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.2 (Dichloromethane:Methanol [9:1])

**HPLC:** Shows 99% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	51.67	4.21	14.18
Found	51.43	4.36	13.9

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**Description:**

Cytochrome P450 inhibitor. Inhibits several cytochrome P450 enzymes including aromatase (CYP19) and retinoic acid 4-hydroxylase (CYP26). Blocks retinoic acid metabolism (retinoic acid metabolism blocking agent, RAMBA). Displays antitumor activity against androgen-dependent and independent rat prostate carcinomas.

**Physical and Chemical Properties:**

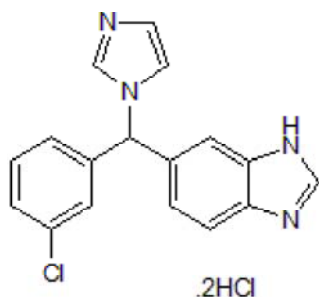
Batch Molecular Formula: C<sub>17</sub>H<sub>13</sub>ClN<sub>4</sub>·2HCl·¾H<sub>2</sub>O

Batch Molecular Weight: 395.2

Physical Appearance: Beige solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

DMSO to 100 mM

water 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:**

**Goss et al** (2007) Effects of liarozole fumarate (R85246) in combination with tamox. on N-methyl-N-nitrosourea (MNU)-induced mammary carcinoma and uterus in the rat model. *BMC Cancer* **7** 26. PMID: 17266767.

**Njar et al** (2006) Retinoic acid metabolism blocking agents (RAMBAs) for treatment of cancer and dermatological diseases. *Bioorg.Med.Chem.* **14** 4323. PMID: 16530416.

**Van Wauwe et al** (1992) Liarozole, an inhibitor of retinoic acid metabolism, exerts retinoid-mimetic effects *in vivo*. *J.Pharmacol.Exp.Ther.* **261** 773. PMID: 1374473.

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