

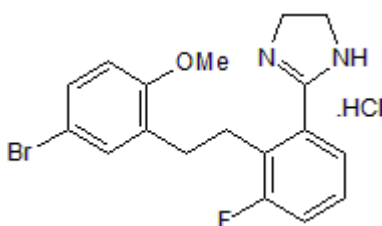
**Product Name:** ML 00253764 hydrochloride

**Catalog No.:** 4854 **Batch No.:** 1

**IUPAC Name:** 2-[2-[2-(5-Bromo-2-methoxyphenyl)ethyl]-3-fluorophenyl]-4,5-dihydro-2-1H-imidazole hydrochloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>18</sub>H<sub>18</sub>BrFN<sub>2</sub>O.HCl.¼H<sub>2</sub>O  
**Batch Molecular Weight:** 418.21  
**Physical Appearance:** Off-white solid  
**Solubility:** water to 10 mM  
DMSO to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.04 (Chloroform:Methanol [9:1])  
**HPLC:** Shows >98.4% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	51.7	4.7	6.7
Found	51.48	4.54	6.65

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

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**Description:**

Non-peptide, melanocortin MC<sub>4</sub> receptor antagonist (IC<sub>50</sub> values are 0.32, 0.81 and 2.12 μM for MC<sub>4</sub>, MC<sub>3</sub> and MC<sub>5</sub> receptors respectively). Decreases cAMP accumulation in HEK-293 cells expressing the MC<sub>4</sub> receptor. Increases food intake and reduces loss of lean body mass in tumor bearing mice. Brain penetrant.

**Physical and Chemical Properties:**

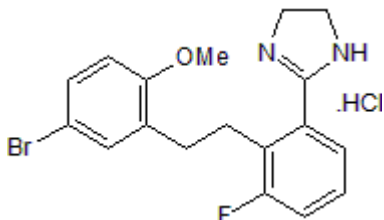
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Batch Molecular Weight: 418.21

Physical Appearance: Off-white solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**Solubility & Usage Info:**

water to 10 mM  
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:**

**Vos et al** (2004) Identification of 2-[2-[2-(5-bromo-2-methoxyphenyl)-ethyl]-3-fluorophenyl]-4,5-dihydro-1H-imidazole (ML00253764), a small molecule melanocortin 4 receptor antagonist that effectively reduces tumor-induced weight loss in a mouse model. *J.Med.Chem.* **47** 1602. PMID: 15027849.

**Tucci et al** (2005) Potent and orally active non-peptide antagonists of the human melanocortin-4 receptor based on a series of trans-2-disubstituted cyclohexylpiperazines. *Bioorg.Med.Chem.Lett.* **15** 4389. PMID: 16098742.

**Nicholson et al** (2006) Peripheral administration of a melanocortin 4-receptor inverse agonist prevents loss of lean body mass in tumor-bearing mice. *J.Pharmacol.Exp.Ther.* **317** 771. PMID: 16436498.

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