

Certificate of Analysis

www.tocris.com

Product Name: ML 00253764 hydrochloride

Catalog No.: 4854

Batch No.: 2

CAS Number: 1706524-94-8

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: C₁₈H₁₈BrFN₂O.HCl

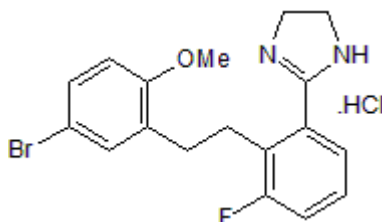
Batch Molecular Weight: 413.71

Physical Appearance: White solid

Solubility: water to 10 mM
DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.55 (Dichloromethane:Methanol:Ammonia soln. [190:9:1])

HPLC: Shows 99.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 52.26 4.63 6.77

Found 52.18 4.53 6.73

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

Product Name: ML 00253764 hydrochloride

Catalog No.: 4854

Batch No.: 2

CAS Number: 1706524-94-8

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

Description:

Non-peptide, melanocortin MC₄ receptor antagonist (IC₅₀ values are 320, 810 and 2120 nM for MC₄, MC₃ and MC₅ receptors respectively). Decreases cAMP accumulation in HEK-293 cells expressing the MC₄ receptor. Increases food intake and reduces loss of lean body mass in tumor bearing mice. Brain penetrant.

Physical and Chemical Properties:

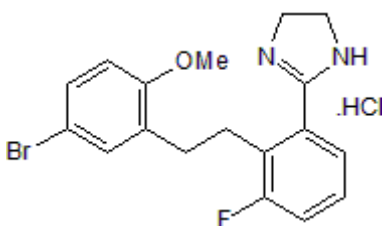
Batch Molecular Formula: C₁₈H₁₈BrFN₂O.HCl

Batch Molecular Weight: 413.71

Physical Appearance: 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:

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.

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.

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.

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel:+1 612 379 2956