

Product Name: Nafadotride

Catalog No.: 1347

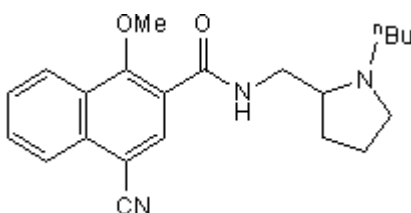
Batch No.: 2

CAS Number: 149649-22-9

IUPAC Name: *N*-[(1-Butyl-2-pyrrolidinyl)methyl]-4-cyano-1-methoxy-2-naphthalenecarboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₂H₂₇N₃O₂
Batch Molecular Weight: 365.47
Physical Appearance: White solid
Solubility: 1eq. HCl to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.3 (Ethyl acetate:Methanol [4:1])
Melting Point: Between 64 - 69°C(dec)
HPLC: Shows 98.0% purity
¹H NMR: Consistent with structure
¹³C NMR: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	72.3	7.45	11.49
Found	72.01	7.69	11.49

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

Product Name: Nafadotride

Catalog No.: 1347

Batch No.: 2

CAS Number: 149649-22-9

IUPAC Name: *N*-[(1-Butyl-2-pyrrolidinyl)methyl]-4-cyano-1-methoxy-2-naphthalenecarboxamide

Description:

Highly potent, competitive, preferential dopamine D₃ receptor antagonist. K_i values are 0.52, 5, and 269 nM for human cloned D₃, D₂ and D₄ receptors respectively. Centrally active upon systemic administration.

Physical and Chemical Properties:

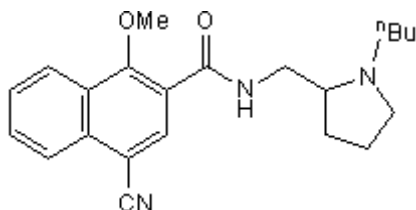
Batch Molecular Formula: C₂₂H₂₇N₃O₂

Batch Molecular Weight: 365.47

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

1eq. HCl 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:

Sautel et al (1995) Nafadotride, a potent preferential dopamine D₃ receptor antagonist, activates locomotion in rodents. *J.Pharmacol.Exp.Ther.* **275** 1239. PMID: 8531087.

Audinot et al (1998) A comparative *in vitro* and *in vivo* pharmacological characterization of the novel dopamine D₃ receptor antagonists (+)-S 14297, nafadotride, GR 103,691 and U 99194. *J.Pharmacol.Exp.Ther.* **287** 187. PMID: 9765337.

Richtand et al (2000) The dopamine D₃ receptor antagonist nafadotride inhibits development of locomotor sensitization to amphetamine. *Brain Res.* **867** 239. PMID: 10837819.

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