

Certificate of Analysis

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Product Name: BCTC

Catalog No.: 3875

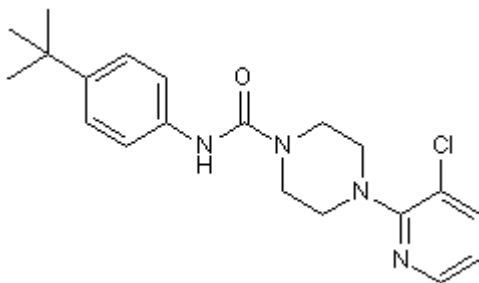
Batch No.: 1

CAS Number: 393514-24-4

IUPAC Name: 4-(3-Chloro-2-pyridinyl)-N-[4-(1,1-dimethylethyl)phenyl]-1-piperazinecarboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₂₅ClN₄O
Batch Molecular Weight: 372.89
Physical Appearance: White solid
Solubility: DMSO to 100 mM
ethanol to 40 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.62 (Ethyl acetate)
HPLC: Shows 98.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	64.42	6.76	15.02
Found	64.34	6.78	14.91

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

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IUPAC Name: 4-(3-Chloro-2-pyridinyl)-N-[4-(1,1-dimethylethyl)phenyl]-1-piperazinecarboxamide

Description:

Orally effective vanilloid receptor 1 (TRPV1 receptor) antagonist. Inhibits acid- and capsaicin-induced activation of rat TRPV1 receptors (IC₅₀ values are 6.0 and 35 nM respectively). Displays analgesic properties in rat models of inflammatory and neuropathic pain. CNS penetrant.

Physical and Chemical Properties:

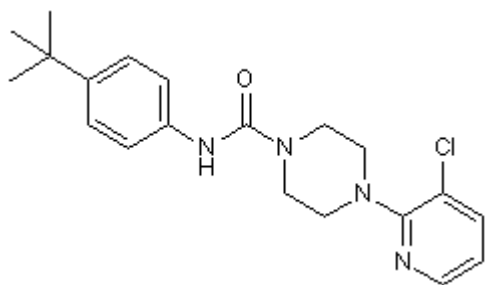
Batch Molecular Formula: C₂₀H₂₅ClN₄O

Batch Molecular Weight: 372.89

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Pomonis et al (2003) *N*-(4-Tertiarybutylphenyl)-4-(3-chloropyridin-2-yl)tetrahydropyrazine -1(2*H*)-carbox-amide (BCTC), a novel, orally effective vanilloid receptor 1 antagonist with analgesic properties: II. In vivo characterization in rat models of inflammatory and neuropathic pain. *J.Pharmacol.Exp.Ther.* **306** 387. PMID: 12721336.

Valenzano et al (2003) *N*-(4-tertiarybutylphenyl)-4-(3-chloropyridin-2-yl)tetrahydropyrazine -1(2*H*)-carbox-amide (BCTC), a novel, orally effective vanilloid receptor 1 antagonist with analgesic properties: I. In vitro characterization and pharmacokinetic properties. *J.Pharmacol.Exp.Ther.* **306** 377. PMID: 12721338.

Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 40 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.

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