

## Certificate of Analysis

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**Product Name:** JNJ 17203212

**Catalog No.:** 3361

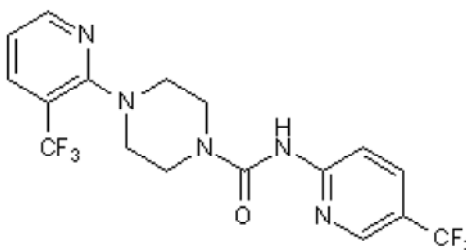
**Batch No.:** 1

CAS Number: 821768-06-3

IUPAC Name: 4-[3-(Trifluoromethyl)-2-pyridinyl]-N-[5-(trifluoromethyl)-2-pyridinyl]-1-piperazinecarboxamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>17</sub>H<sub>15</sub>F<sub>6</sub>N<sub>5</sub>O  
**Batch Molecular Weight:** 419.32  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.8% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	48.69	3.61	16.7
Found	48.46	3.58	16.68

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

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**Description:**

Reversible, competitive and potent TRPV1 antagonist (pK<sub>i</sub> values are 6.5, 7.1 and 7.3 at rat, guinea pig and human TRPV1 respectively). Inhibits capsaicin- and H<sup>+</sup>-induced channel activation (pIC<sub>50</sub> values are 6.32 and 7.23 respectively) and exhibits antitussive and analgesic activity in vivo.

**Physical and Chemical Properties:**

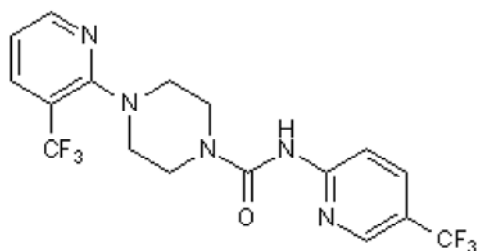
Batch Molecular Formula: C<sub>17</sub>H<sub>15</sub>F<sub>6</sub>N<sub>5</sub>O

Batch Molecular Weight: 419.32

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM  
ethanol 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:**

**Bhattacharya et al** (2007) Pharmacology and antitussive efficacy of 4-(3-trifluoromethyl-pyridin-2-yl)-piperazine-1-carboxylic acid (5-trifluoromethyl-pyridin-2-yl)-amide (JNJ17203212), a transient receptor potential vanilloid 1 antagonist in guinea pigs. *J.Pharmacol.Exp.Ther.* **323** 665. PMID: 17690251.

**Ghilardi et al** (2005) Selective blockade of the capsaicin receptor TRPV1 attenuates bone cancer pain. *J.Neurosci.* **25** 3126. PMID: 15788769.

**Swanson et al** (2005) Identification and biological evaluation of 4-(3-trifluoromethylpyridin-2-yl)piperazine-1-carboxylic acid (5-trifluoromethylpyridin-2-yl)amide, a high affinity TRPV1 (VR1) vanilloid receptor antagonist. *J.Med.Chem.* **48** 1857. PMID: 15771431.

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