



# **Certificate of Analysis**

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Product Name: JNJ 47965567 Catalog No.: 5299 Batch No.: 5

CAS Number: 1428327-31-4

IUPAC Name: 2-(Phenylthio)-*N*-[[tetrahydro-4-(4-phenyl-1-piperazinyl)-2*H*-pyran-4-yl]methyl-3-pyridinecarboxamide

#### 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:  $C_{28}H_{32}N_4O_2S$ 

Batch Molecular Weight: 488.64
Physical Appearance: White solid

Solubility: 1eq. HCl to 50 mM

DMSO to 100 mM

Storage: Store at +4°C

**Batch Molecular Structure:** 

## 2. ANALYTICAL DATA

**TLC:**  $R_f = 0.43$  (Dichloromethane:Methanol [95:5])

HPLC: Shows 99.8% purity

<sup>1</sup>H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 68.82 6.6 11.47 Found 68.49 6.89 11.42



# **Product Information**

Print Date: May 10th 2017

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**IUPAC Name:** 2-(Phenylthio)-N-[[tetrahydro-4-(4-phenyl-1-piperazinyl)-2H-pyran-4-yl]methyl-3-pyridinecarboxamide

#### **Description:**

Potent and selective P2X<sub>7</sub> antagonist (pIC<sub>50</sub> values are 8.3, 7.5 and 7.2 for human, mouse and rat receptors respectively). Selective over a panel of 50 other receptors, ion channels and transporters. Reduces BzATP-induced IL-1ß release from monocytes in vitro and from rat brain in vivo. Attenuates amphetamine-induced hyperactivity in rats. Brain penetrant.

## **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>28</sub>H<sub>32</sub>N<sub>4</sub>O<sub>2</sub>S Batch Molecular Weight: 488.64 Physical Appearance: White solid

Minimum Purity: >98%

#### **Batch Molecular Structure:**

Storage: Store at +4°C

# Solubility & Usage Info:

1ea. HCl to 50 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:

Bhattacharya et al (2013) Pharmacological characterization of a novel centrally permeable P2X<sub>7</sub> receptor antagonist: JNJ-47965567. Br.J.Pharmacol. 170 624. PMID: 23889535.

Letavic et al (2013) Synthesis and pharmacological characterization of two novel, brain penetrating P2X<sub>7</sub> antagonists. ACS Med.Chem.Lett. 12 419. PMID: 24900687.

Tel: +44 (0)1235 529449

www.tocris.com/distributors Tel:+1 612 379 2956