Certificate of Analysis

www.tocris.com

Print Date: Jul 27th 2020

NS 3861 Product Name:

TOCRIS

a biotechne

Storage:

CAS Number: 216853-60-0

IUPAC Name: 3-(3-Bromo-2-thienyl)-8-methyl-8-azabicyclo[3.2.1]oct-2-ene fumarate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: Batch Molecular Weight: Physical Appearance: Solubility:

Batch Molecular Structure:

C12H14BrNS.C4H4O4 400.29 Off White solid water to 50 mM DMSO to 100 mM Desiccate at RT

.C4H4O4

2. ANALYTICAL DATA

HPLC: ¹H NMR: Mass Spectrum: Microanalysis:

Shows >99.8% purity Consistent with structure Consistent with structure Carbon Hydrogen Nitrogen

Br

Theoretical	48.01	4.53	3.5
Found	48	4.5	3.52

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

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Catalog No.: 4831

Batch No.: 2

TOCRIS a biotechne brand

Product Information

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Batch No.: 2

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IUPAC Name: 3-(3-Bromo-2-thienyl)-8-methyl-8-azabicyclo[3.2.1]oct-2-ene fumarate

Description:

 $\alpha 3\beta 2$ full agonist (EC₅₀ = 1.6 µM). Also $\alpha 3\beta 4$ partial agonist (EC₅₀ = 1 µM). Exhibits minimal activity at $\alpha 4\beta 2$ and $\alpha 4\beta 4$. Displays high affinity for $\alpha 3\beta 4$, $\alpha 4\beta 4$, $\alpha 3\beta 2$ and $\alpha 4\beta 2$ (K_i values are 0.62, 7.8, 25 and 55 nM respectively).

Physical and Chemical Properties:

Batch Molecular Formula: C₁₂H₁₄BrNS.C₄H₄O₄ Batch Molecular Weight: 400.29 Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Desiccate at RT

Solubility & Usage Info: water 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).

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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:

Harpsøe et al (2013) Molecular determinants of subtype-selective efficacies of cytisine and the novel compound NS3861 at heteromeric nicotinic acetylcholine receptors. J.Biol.Chem. 288 2559. PMID: 23229547.

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