

Certificate of Analysis

Print Date: Sep 23rd 2024

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Product Name: BTD Catalog No.: 6940 Batch No.: 2

CAS Number: 896684-04-1

IUPAC Name: 6-Methyl-*N*-[3-(tricyclo[3.3.1.^{13,7}]dec-1-yloxy)propyl]-4*H*-1,2,4-benzothiadiazine-3-propanamide-1,1-dioxide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₄H₃₃N₃O₄S.

Batch Molecular Weight: 459.61 **Physical Appearance:** White solid

Solubility: DMSO to 100 mM Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.8% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 62.72 7.24 9.14 Found 62.41 7.14 9.04

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



Product Information

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Description:

BTD is a selective TRPC5 activator (EC $_{50}$ = 1.4 μ M in a calcium influx assay, 1.3 μ M in whole cell patch clamp assay). Displays >14.5-fold selectivity for TRPC5 over other TRP channels (EC $_{50}$ = 20.6 μ M for TRPM8). Also activates TRPC1:5 and TRPC4:5 heteromers.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₄H₃₃N₃O₄S.

Batch Molecular Weight: 459.61 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Beckmann et al (2017) A benzothiadiazine derivative and methylprednisolone are novel and selective activators of transient receptor potential canonical 5 (TRPC5) channels. Cell Calcium. 66 10. PMID: 28807145.

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