TOCRIS
a bio-techne brand

Print Date: May 4th 2022

Certificate of Analysis

www.tocris.com

Product Name: **5-BDBD** **Catalog No.: 3579** **Batch No.: 2**

CAS Number: 768404-03-1

IUPAC Name: 5-(3-Bromophenyl)-1,3-dihydro-2*H*-benzofuro[3,2-*e*]-1,4-diazepin-2-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{17}H_{11}BrN_2O_2$

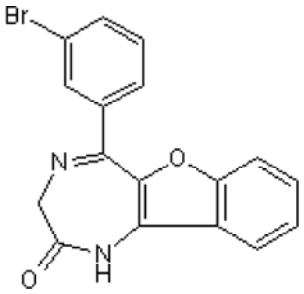
Batch Molecular Weight: 355.19

Physical Appearance: Off White solid

Solubility: DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.58 (Chloroform:Methanol [9:1])

HPLC: Shows 99.2% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	57.49	3.12	7.89
Found	57.73	3.1	7.9

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

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

Product Information

Product Name: **5-BDBD** **Catalog No.: 3579** **Batch No.: 2**

CAS Number: 768404-03-1

IUPAC Name: 5-(3-Bromophenyl)-1,3-dihydro-2*H*-benzofuro[3,2-*e*]-1,4-diazepin-2-one

Description:

5-BDBD is a potent and selective $P2X_4$ receptor antagonist. Blocks $P2X_4$-mediated currents in Chinese hamster ovary cells (IC_{50} = 0.50 µM). Exhibits no significant antagonist effects at other P2X receptors. Reduces long-term potentiation (LTP) in rat hippocampal slices.

Physical and Chemical Properties:

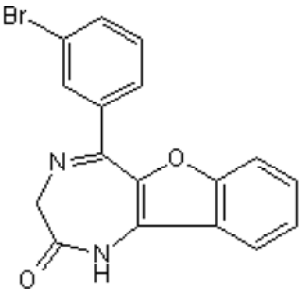
Batch Molecular Formula: $C_{17}H_{11}BrN_2O_2$

Batch Molecular Weight: 355.19

Physical Appearance: Off White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Store at RT

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. 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:

Coddou *et al* (2018) Characterization of the antagonist actions of 5-BDBD at the rat P2X4 receptor. Neurosci Lett. ***690*** 219. PMID: 30366010.

Casati *et al* (2011) Cell-autonomous regulation of hematopoietic stem cell cycling activity by ATP. Cell Death Differ. ***18*** 396. PMID: 20798687.

Donnelly-Roberts *et al* (2008) Painful purinergic receptors. J.Pharmacol.Exp.Ther. ***324*** 409. PMID: 18042830.

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

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