

Certificate of Analysis

www.tocris.com

Product Name: VU 0071063

Catalog No.: 7057

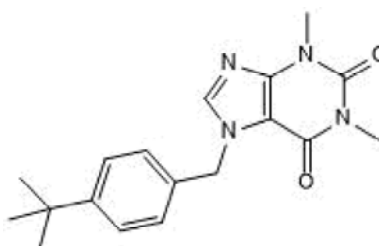
Batch No.: 1

CAS Number: 333415-38-6

IUPAC Name: 7-[[4-(1,1-Dimethylethyl)phenyl]methyl]-3,7-dihydro-1,3-dimethyl-1*H*-purine-2,6-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₂₂N₄O₂.
Batch Molecular Weight: 326.4
Physical Appearance: White solid
Solubility: DMSO to 5 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.4% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.24	6.79	17.17
Found	65.91	6.8	16.98

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

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 Name: VU 0071063

Catalog No.: 7057

Batch No.: 1

CAS Number: 333415-38-6

IUPAC Name: 7-[[4-(1,1-Dimethylethyl)phenyl]methyl]-3,7-dihydro-1,3-dimethyl-1*H*-purine-2,6-dione

Description:

VU 0071063 is a selective activator of SUR1 Kir6.2 channels and pancreatic β -cell K_{ATP} channels (EC_{50} = 7 μ M and 0.3-10.3 μ M, respectively). VU 0071063 inhibits insulin secretion in pancreatic β -cells by inducing hyperpolarization of β -cell membranes and reduces voltage dependent calcium channel activation and Ca^{2+} influx. VU 0071063 is brain penetrant and active in vivo.

Physical and Chemical Properties:

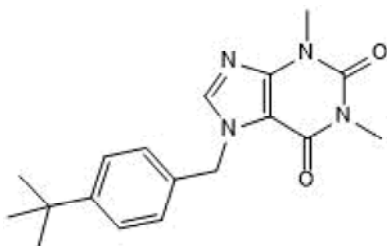
Batch Molecular Formula: $C_{18}H_{22}N_4O_2$.

Batch Molecular Weight: 326.4

Physical Appearance: White solid

Minimum Purity: $\geq 98\%$

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 5 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:

Kharade et al (2019) Structure-activity relationships, pharmacokinetics, and pharmacodynamics of the Kir6.2/SUR1-specific channel opener VU0071063. *J.Pharmacol.Exp.Ther.* **370** 350. PMID: 31201216.

Raphemot et al (2014) Direct activation of β -cell K_{ATP} channels with a novel xanthine derivative. *Mol.Pharmacol.* **85** 858. PMID: 24646456.

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

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