

Certificate of Analysis

www.tocris.com

Product Name: VU 0240551

Catalog No.: 3888

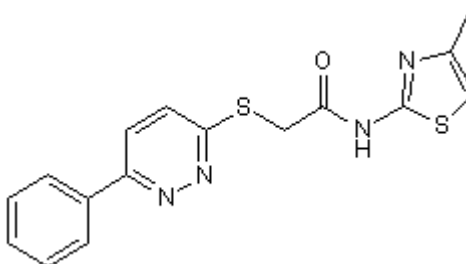
Batch No.: 1

CAS Number: 893990-34-6

IUPAC Name: *N*-(4-Methyl-2-thiazolyl)-2-[(6-phenyl-3-pyridazinyl)thio]acetamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₁₄N₄OS₂
Batch Molecular Weight: 342.43
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 25 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	56.12	4.12	16.36
Found	56.11	4.19	16.37

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

Product Name: VU 0240551

Catalog No.: 3888

Batch No.: 1

CAS Number: 893990-34-6

IUPAC Name: *N*-(4-Methyl-2-thiazolyl)-2-[(6-phenyl-3-pyridazinyl)thio]acetamide

Description:

Inhibitor of the neuronal K-Cl cotransporter, KCC2 (IC₅₀ = 560 nM for K⁺ uptake assay in KCC2-overexpressing cells). Exhibits selectivity over the Na-K-2Cl cotransporter, NKCC1. Also inhibits hERG and L-type Ca²⁺ channels.

Physical and Chemical Properties:

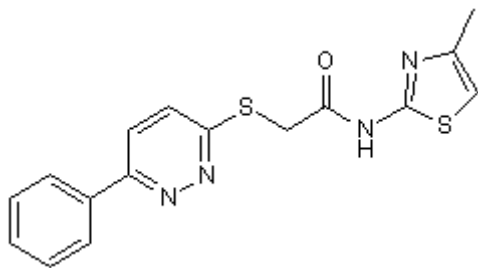
Batch Molecular Formula: C₁₆H₁₄N₄OS₂

Batch Molecular Weight: 342.43

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 25 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:

Delpire et al (2009) Small-molecule screen identifies inhibitors of the neuronal K-Cl cotransporter KCC2. *Proc.Natl.Acad.Sci.USA* **106** 5383. PMID: 19279215.

Delpire et al (2012) Further optimization of the K-Cl cotransporter KCC2 antagonist ML077: development of a highly selective and more potent *in vitro* probe. *Bioorg.Med.Chem.Lett.* **22** 4532. PMID: 22727639.

Deisz et al (2014) Effects of VU0240551, a novel KCC2 antagonist, and DIDS on chloride homeostasis of neocortical neurons from rats and humans. *Neuroscience* **277** 831. PMID: 25086309.

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