

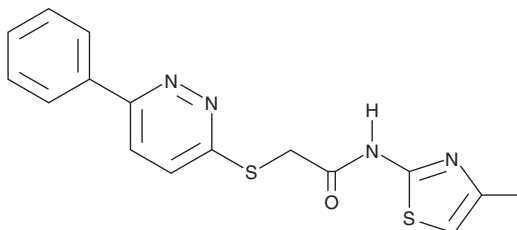
PRODUCT INFORMATION



VU0240551

Item No. 29790

CAS Registry No.: 893990-34-6
Formal Name: N-(4-methyl-2-thiazolyl)-2-[(6-phenyl-3-pyridazinyl)thio]-acetamide
MF: C₁₆H₁₄N₄OS₂
FW: 342.4
Purity: ≥98%
UV/Vis.: λ_{max}: 277 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

VU0240551 is supplied as a crystalline solid. A stock solution may be made by dissolving the VU0240551 in the solvent of choice, which should be purged with an inert gas. VU0240551 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of VU0240551 in these solvents is approximately 2, 25, and 30 mg/ml, respectively.

VU0240551 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, VU0240551 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. VU0240551 has a solubility of approximately 0.1 mg/ml in a 1:10 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

VU0240551 is a K⁺/Cl⁻ cotransporter 2 (KCC2) inhibitor (IC₅₀ = 568 nM).¹ It selectively inhibits KCC2 over Na⁺/K⁺/Cl⁻ cotransporter 1 (NKCC1; IC₅₀ = >50 μM) but does inhibit the activity of adenosine A₁ and A₃ receptors, as well as inhibits activity of L-type calcium channels at the benzothiazepine site and human ether-a-go-go-related gene (hERG) potassium channels by greater than 50% in a panel of 68 receptors, ion channels, and transporters at 10 μM. VU0240551 decreases potassium ion uptake by 70% in HEK293 cells expressing KCC2 when used at a concentration of 1 μM.

Reference

1. Delpire, E., Days, E., Lewis, L.M., *et al.* Small-molecule screen identifies inhibitors of the neuronal K-Cl cotransporter KCC2. *Proc. Natl. Acad. Sci. U.S.A.* **106**(13), 5383-5388 (2009).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/09/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM