

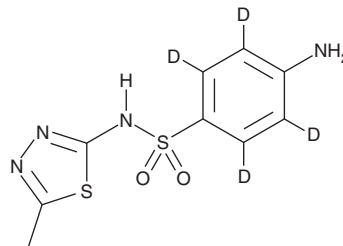
PRODUCT INFORMATION



Sulfamethizole-d₄

Item No. 26789

CAS Registry No.: 2470130-12-0
Formal Name: 4-amino-N-(5-methyl-1,3,4-thiadiazol-2-yl)benzene-d₄-sulfonamide
Synonym: N¹-(5-Methyl-1,3,4-thiadiazol-2-yl)sulfanilamide-d₄
MF: C₉H₆D₄N₄O₂S₂
FW: 274.3
Chemical Purity: ≥98% (Sulfamethizole)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A 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

Sulfamethizole-d₄ is intended for use as an internal standard for the quantification of sulfamethizole (Item No. 23355) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Sulfamethizole-d₄ is supplied as a solid. A stock solution may be made by dissolving the sulfamethizole-d₄ in the solvent of choice, which should be purged with an inert gas. Sulfamethizole-d₄ is slightly soluble in methanol and DMSO.

Description

Sulfamethizole is a broad-spectrum sulfonamide antibiotic (MIC₉₀s = 1.25-5,000 µg/ml against clinical isolates of *E. coli* and *K. pneumoniae*).¹ It inhibits dihydropteroate synthase, an enzyme involved in folate biosynthesis. Formulations containing sulfamethizole have previously been used to treat urinary tract infections.

Reference

1. Wambaugh, M.A., Shakya, V.P.S., Lewis, A.J., *et al.* High-throughput identification and rational design of synergistic small-molecule pairs for combating and bypassing antibiotic resistance. *PLoS Biol.* **15(6):e2001644** (2017).

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, 11/17/2022

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