



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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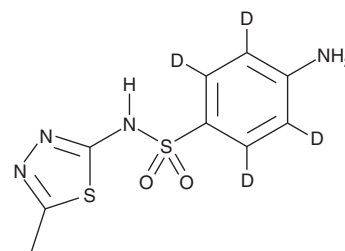
# PRODUCT INFORMATION



## Sulfamethizole-d<sub>4</sub>

Item No. 26789

**Formal Name:** 4-amino-N-(5-methyl-1,3,4-thiadiazol-2-yl)benzene-d<sub>4</sub>-sulfonamide  
**Synonym:** N<sup>1</sup>-(5-Methyl-1,3,4-thiadiazol-2-yl)sulfanilamide-d<sub>4</sub>  
**MF:** C<sub>9</sub>H<sub>6</sub>D<sub>4</sub>N<sub>4</sub>O<sub>2</sub>S<sub>2</sub>  
**FW:** 274.3  
**Chemical Purity:** ≥98% (Sulfamethizole)  
**Deuterium**  
**Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>4</sub>); ≤1% d<sub>0</sub>  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

Sulfamethizole-d<sub>4</sub> 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-d<sub>4</sub> is supplied as a solid. A stock solution may be made by dissolving the sulfamethizole-d<sub>4</sub> in the solvent of choice, which should be purged with an inert gas. Sulfamethizole-d<sub>4</sub> is slightly soluble in methanol and DMSO.

### Description

Sulfamethizole is a broad-spectrum sulfonamide antibiotic (MIC<sub>90</sub>s = 1.25-5,000 µg/ml against clinical isolates of *E. coli* and *K. pneumoniae*).<sup>1</sup> 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.

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