

Product Data Sheet

Product Name: Sulfamethizole-d₄

Cat. No.: GC48116

Chemical Properties

Cas. No. 2470130-12-0

SMILES NC1=C([2H])C([2H])=C(S(=O)(=O)NC2=NN=C(C)S2)C([2H])=C1[2H]

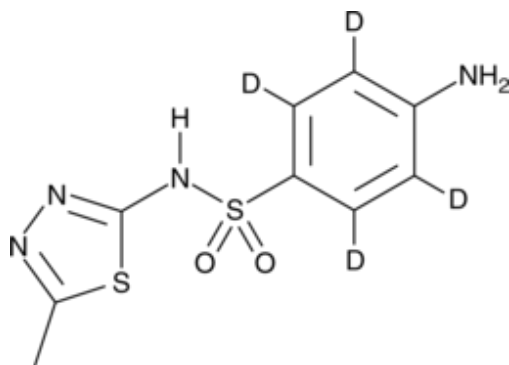
Formula C₉H₆D₄N₄O₂S₂ M.Wt 274.3

Solubility DMSO: slightly soluble, Methanol: slightly soluble Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Sulfamethizole-d₄ is intended for use as an internal standard for the quantification of sulfamethizole

Caution: Product has not been fully validated for medical applications. For research use only.

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by GC- or LC-MS. Sulfamethizole is a broad-spectrum sulfonamide antibiotic ($\text{MIC}_{90}\text{s} = 1.25\text{-}5,000$ $\mu\text{g/ml}$ 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.

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 resistancePLoS Biol.15(6):e2001644(2017)

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