

Product Information

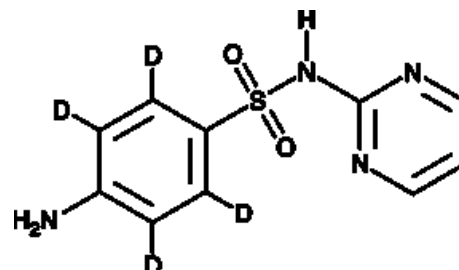


Sulfadiazine-d₄

Cat No: 33605 - 1 mg

General Data

Shipping:	dry ice
Formulation:	A solid
Purity:	≥99% deuterated forms (d1-d4)



Product Overview

Sulfadiazine-d₄ is intended for use as an internal standard for the quantification of sulfadiazine (Item No. 23719) by GC- or LC-MS. Sulfadiazine is a sulfonamide antibiotic that inhibits the growth of Gram-positive and Gram-negative bacteria. {38582,36439,36440,36441} It inhibits dihydropteroate synthase (DHPS), which converts a pteridine and 4-aminobenzoic acid (PABA; Item No. 18659) to dihydropteroate, an intermediate in folate biosynthesis. {38582} Sulfadiazine inhibits recombinant *P. carinii* DHPS (IC₅₀ = 0.19 μM). It is active against clinical isolates of *M. tuberculosis* (MIC₉₀ = 10 mg/L) and of *N. meningitidis* (MICs = 5-2,000 mg/L). {36439,36440} Sulfadiazine is also active against *A. pleuropneumoniae*, *S. choleraesuis*, *S. typhimurium*, *P. multocida*, *S. equi*, and *S. suis* (MIC_{90s} = 16473). {36441} In vivo, sulfadiazine (40 mg/kg per day) increases survival in a mouse model of lethal *T. gondii* infection when administered in combination with pyrimethamine (Item No. 16472). {36442} Formulations containing sulfadiazine have been used in the treatment of rheumatic fever and various infections, and, in a dual treatment with pyrimethamine, to treat toxoplasmosis.

FP/27/24

For research laboratory use only – Not for human diagnostic use.

Buyers agree to purchase the material subject to Purchasing Terms that can be found on our website. Seek appropriate training to safely handle this product under normal conditions. Use the recommended personal protective equipment to prevent chemical exposures.

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