

Product Data Sheet

Product Name: Sulfamoxole

Cat. No.: GC45610

Chemical Properties

Cas. No. 729-99-7

SMILES NC1=CC=C(S(=O)(=O)NC2=NC(C)=C(C)O2)C=C1

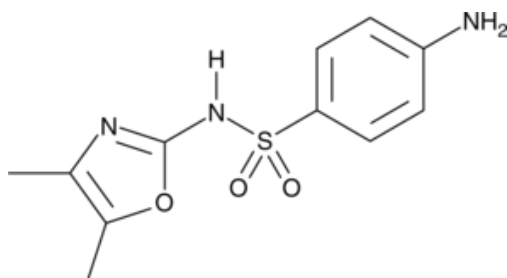
Formula C₁₁H₁₃N₃O₃S M.Wt 267.3

Solubility DMF: 30 mg/ml, DMSO: 30 mg/ml, DMSO:PBS (pH 7.2) (1:3): 0.25 mg/ml
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

Sulfamoxole is a sulfonamide antibiotic.¹ It is inactive or weakly active against bacteria when used alone but acts synergistically with trimethoprim against a variety of bacteria in vitro, including strains of *S. pyogenes*, *E. coli*, and *P. vulgaris* when used at concentrations of 1.95-7.8, 0.12-1.95, and 0.48-0.97 µg/ml, respectively. Sulfamoxole, in combination with trimethoprim, is effective in mouse models of *E. coli* or *P. vulgaris* infection. It inhibits *P. carinii* recombinant dihydropteroate synthase (DHPS), an enzyme required for the biosynthesis of folate, with an IC₅₀ value of 0.089 µM.²

[1. B•hni, E. Bacteriostatic and bactericidal activity of two trimethoprim-sulfonamide combinations. *Chemotherapy* 22(3-4), 262-273 (1976).|2. Hong, Y.-L., Hossler, P.A., Calhoun, D.H., et al. Inhibition of recombinant *Pneumocystis carinii* dihydropteroate synthetase by sulfa drugs. *Antimicrob. Agents*

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

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Chemother. 39(8), 1756-1763 (1995).

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