

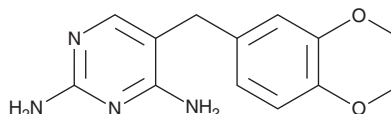
PRODUCT INFORMATION



Diaveridine

Item No. 29427

CAS Registry No.: 5355-16-8
Formal Name: 5-[(3,4-dimethoxyphenyl)methyl]-
2,4-pyrimidinediamine
Synonym: NSC 408735
MF: C₁₃H₁₆N₄O₂
FW: 260.3
Purity: ≥98%
Supplied as: A crystalline 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

Diaveridine is supplied as a crystalline solid. A stock solution may be made by dissolving the diaveridine in the solvent of choice, which should be purged with an inert gas. Diaveridine is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of diaveridine in these solvents is approximately 5 mg/ml. Diaveridine is also slightly soluble in ethanol.

Diaveridine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, diaveridine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Diaveridine has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Diaveridine is a dihydrofolate reductase (DHFR) inhibitor ($K_i = 11.5$ nM for the *P. falciparum* enzyme) with antimicrobial activity.¹⁻⁴ It is active against *P. vulgaris*, *S. aureus*, and *S. pyogenes* *in vitro* (MICs = 4, 1, and 2 µg/ml, respectively).² Diaveridine has anticoccidial activity when administered alone or in combination with sulfaquinoxaline.^{3,4}

References

1. Sirichaiwat, C., Intrarandom, C., Kamchonwongpaisan, S., *et al.* Target guided synthesis of 5-benzyl-2,4-diaminopyrimidines: Their antimalarial activities and binding affinities to wild type and mutant dihydrofolate reductases from *Plasmodium falciparum*. *J. Med. Chem.* **47(2)**, 345-354 (2004).
2. Roth, B., Falco, E.A., Hitchings, G.H., *et al.* 5-Benzyl-2,4-diaminopyrimidines as antibacterial agents. I. Synthesis and antibacterial activity *in vitro*. *J. Med. Chem.* **5(6)**, 1103-1123 (1962).
3. Ryley, J.F. and Betts, M.J. Chemotherapy of chicken coccidiosis. *Advances in Pharmacology* **11**, 221-293 (1973).
4. Wang, J., Sun, F., Tang, S., *et al.* Acute, mutagenicity, teratogenicity and subchronic oral toxicity studies of diaveridine in rodents. *Environ. Toxicol. Pharmacol.* **40(2)**, 660-670 (2015).

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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