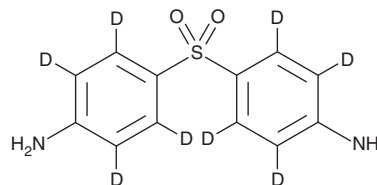


PRODUCT INFORMATION



Dapsone-d₈ Item No. 22113

CAS Registry No.: 557794-38-4
Formal Name: 4,4'-sulfonylbis-benzen-2,3,5,6-d₄-amine
MF: C₁₂H₄D₈N₂O₂S
FW: 256.3
Chemical Purity: ≥96% (Dapsone)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₈); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Special Conditions: Hygroscopic



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

Laboratory Procedures

Dapsone-d₈ is intended for use as an internal standard for the quantification of dapsone (Item No. 23743) 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).

Dapsone-d₈ is supplied as a solid. A stock solution may be made by dissolving the dapsone-d₈ in the solvent of choice, which should be purged with an inert gas. Dapsone-d₈ is slightly soluble in DMSO and methanol.

Description

Dapsone is an anti-inflammatory, antimalarial, and antibacterial compound.¹ *In vivo*, dapsone (34 µg/animal per day) reduces epidermal hyperproliferation and epithelial thickness in the esophagus in a mouse model of proliferative dermatitis.² It reduces lipid peroxidation, myeloperoxidase activity, and cellular apoptosis in the striatum of rats following ischemia and reperfusion injury.³ Dapsone reduces growth of *M. leprae* in the footpad of mice (MIC = 0.01-0.03 µg/ml in sera) and induces clearance of *P. knowlesi* infections in macaques.^{4,5} It also reduces the number of *P. gallinaceum* sporozoites in a mosquito population allowed to feed on dapsone-treated chicks.⁵ Formulations containing dapsone have been used in the treatment of malaria, acne, dermatitis, and leprosy.

References

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3. Diaz-Ruiz, A., Zavala, C., Montes, S., *et al.* Antioxidant, antiinflammatory and antiapoptotic effects of dapsone in a model of brain ischemia/reperfusion in rats. *J. Neurosci. Res.* **86(15)**, 3410-3419 (2008).
4. Holmes, I.B. and Hilson, G.R. The effect of rifampicin and dapsone on experimental *Mycobacterium leprae* infections: Minimum inhibitory concentrations and bactericidal action. *J. Med. Microbiol.* **5(2)**, 251-261 (1972).
5. Ramakrishnan, S.P., Basu, P.C., Singh, H., *et al.* Studies on the toxicity and action of diaminodiphenyl-sulfone (DDS) in avian and simian malaria. *Bull. World Health Organ.* **27(2)**, 213-221 (1962).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM