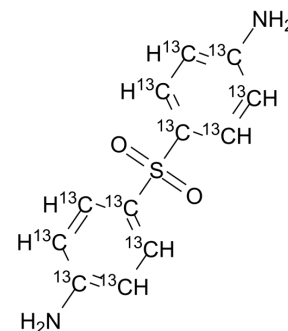


Dapsone-¹³C₁₂

Cat. No.:	HY-B0688S2
CAS No.:	1632119-29-9
Molecular Formula:	¹³ C ₁₂ H ₁₂ N ₂ O ₂ S
Molecular Weight:	260.21
Target:	Bacterial; Parasite; Reactive Oxygen Species; Antibiotic; Isotope-Labeled Compounds
Pathway:	Anti-infection; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Dapsone- ¹³ C ₁₂ is the ¹³ C ₁₂ labeled Dapsone (HY-B0688). Dapsone (4,4'-Diaminodiphenyl sulfone) is an orally active and blood-brain penetrant sulfonamide antibiotic with bacteriostatic, antimycobacterial and antiprotozoal activities. Dapsone exerts effective antileprosy activity and inhibits folate synthesis in cell extracts of <i>M. leprae</i> . Dapsone is used for dermatologic disorder research, including leprosy, dermatitis herpetiformis, acne vulgaris et al ^{[1][2][3][4][5]} .
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. D Voeller, et al. Interaction of Pneumocystis carinii dihydropteroate synthase with sulfonamides and diaminodiphenyl sulfone (dapsone). *J Infect Dis.* 1994 Feb;169(2):456-9.
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- [3]. Esther Moreno, et al. Evaluation of Skin Permeation and Retention of Topical Dapsone in Murine Cutaneous Leishmaniasis Lesions. *Pharmaceutics.* 2019 Nov 13;11(11):607.
- [4]. YI Zhu, et al. Dapsone and sulfones in dermatology: overview and update. *J Am Acad Dermatol*
- [5]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019 Feb;53(2):211-216.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA