

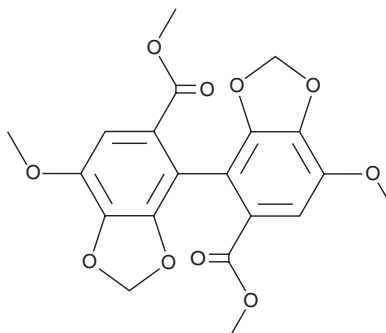
PRODUCT INFORMATION



Bifendate

Item No. 39926

CAS Registry No.: 73536-69-3
Formal Name: 7,7'-dimethoxy-[4,4'-bi-1,3-benzodioxole]-5,5'-dicarboxylic acid, 5,5'-dimethyl ester
Synonyms: Bifendatatum, DDB, Dimethyl diphenyl bicarboxylate
MF: C₂₀H₁₈O₁₀
FW: 418.4
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

Bifendate is supplied as a solid. A stock solution may be made by dissolving the bifendate in the solvent of choice, which should be purged with an inert gas. Bifendate is soluble in acetonitrile and methanol.

Description

Bifendate is a derivative of schisandrin C (Item No. 27475) that has been found in *S. chinensis* and has diverse biological activities.¹⁻³ It reduces lysosomal function and prevents autophagosome-lysosome fusion induced by the mTOR inhibitor Torin 2 (Item No. 14185) in HeLa cells when used at concentrations of 10 and 50 μM.¹ Bifendate (45 μM) reduces MDA-MB-231 breast cancer cell migration in a scratch assay.² Intragastric administration of bifendate (0.03-1 g/kg) reduces hepatic total cholesterol and triglyceride levels in a mouse model of high-fat diet-induced hypercholesterolemia.³

References

1. Yuan, W., Jian, F., and Rong, Y. Bifendate inhibits autophagy at multiple steps and attenuates oleic acid-induced lipid accumulation. *Biochem. Biophys. Res. Commun.* **631**, 115-123 (2022).
2. Qiu, J., Chen, W., Jiang, Y., *et al.* Assessment of a bifendate derivative bearing a 6,7-dihydro-dibenzo[c,e]azepine scaffold as a potential anti-metastatic agent. *Medchemcomm* **9(11)**, (2018).
3. Pan, S.-Y., Yang, R., Dong, H., *et al.* Bifendate treatment attenuates hepatic steatosis in cholesterol/bile salt- and high-fat diet-induced hypercholesterolemia in mice. *Eur. J. Pharmacol.* **552(1-3)**, 170-175 (2006).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 08/20/2024

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