

4728 (C15 acetogenin)

Name: Microcladallene B {3-Bromo-6-(3-bromo-propa-1,2-dienyl)-2-vinyl-2,3,4,4a,6,7,10,10a-octahydro-1,5-dioxa-benzocyclooctene}

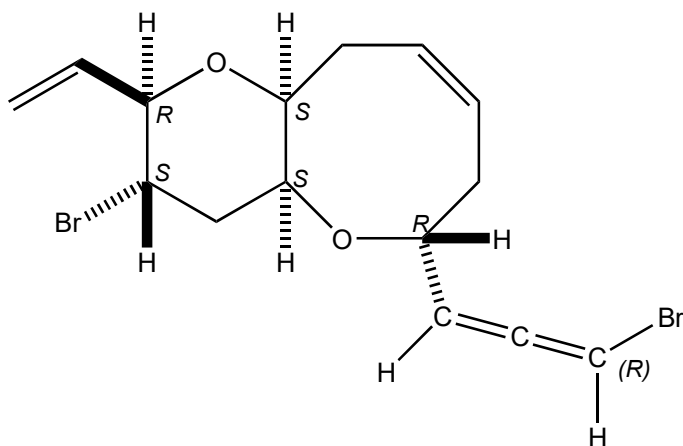
Origin: *Laurencia microcladia* (Cap Ferrat, Mediterranean Sea, France)⁽¹⁾;

Formula: C₁₅H₁₈Br₂O₂

Mol. Wt.: 390.11

Opt. Rot.: [α]_D²⁰ +96.0 (Me₂CO)

Mp.: 83



References and Notes

(1) Kennedy, D. J., Selby, I. A., Cowe, H. J., Cox, P. J., and Thomson, R. H. 1984. *J. Chem. Soc., Chem. Commun.*, **1984**, 153-155. Bromoallenes from the alga *Laurencia microcladia*.

(**IR**, **¹H-NMR**, **¹³C-NMR**)(together with microcladallenes A, B, and C)

(2) **Total synthesis**; (a) Park, J., Kim, B., Kim, H., Kim, S., and Kim, D. 2007. *Angew. Chem. Int. Ed.*, **46**, 4726-4728. Substrate-controlled asymmetric total synthesis of (+)-microcladallenes B with a bromination strategy based on a nucleophile-assisting leaving group.; (b) Sohn, T., Kim, D., and Paton, R. S. 2015. *Chem. Eur. J.*, **21**, 15988-15997. Substrate-controlled asymmetric total syntheses of microcladallenes A, B, and C based on the proposed structures.; (c) Zhang, Y.-A., Yaw, N., and Snyder, S. A. 2019. *J. Am. Chem. Soc.*, **141**, 7776-7788. General synthetic approach for the *Laurencia* family of natural products empowered by a potentially biomimetic ring expansion.