

4801 (C15 acetogenin)

Name: Isolaurallene

{6-Bromo-2-(3-bromo-propa-1,2-dienyl)-5-ethyl-2,3,3a,5,6,7,10,10a-octahydro-furo[3,2-*b*]oxonine}

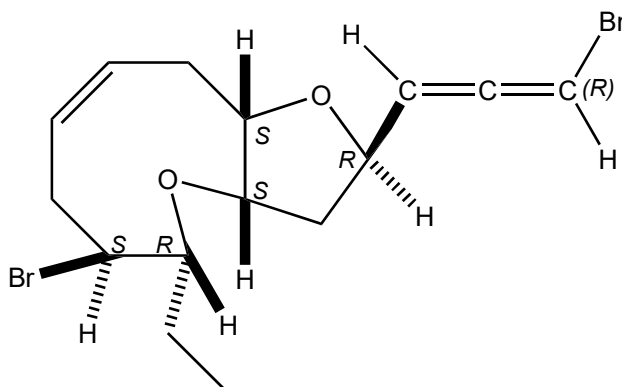
Origin: *Laurencia nipponica* (Izumihama, near Hiroo, Hokkaido, Japan)⁽¹⁾;

Formula: C₁₅H₂₀Br₂O₂

Mol. Wt.: 392.13

Opt. Rot.: [α]_D -113.9 (CHCl₃)

Mp.: 51-52



References and Notes

(1) Kurata, K., Furusaki, A., Suehiro, K., Katayama, C., and Suzuki, T. 1982. Chem. Lett., **11**, 1031-1034. Isolaurallene, a new nonterpenoid C₁₅-bromoallene, from the red alga *Laurencia nipponica* Yamada.

(X-ray crystallographic analysis) (IR, ¹H-NMR, ¹³C-NMR)

(2) Furusaki, A., Katsuragi, S., Suehiro, K., and Matsumoto, T. 1985. Bull. Chem. Soc. Jpn., **58**, 803-809. The conformations of (*Z*)-2,3,4,7,8,9-hexahydrooxonin and (*Z*)-cyclononene. X-ray structure determinations of isolaurallene and neolaurallene, and force-field calculations.

(3) **Total synthesis**; (a) Crimmins, M. T. and Emmitte, K. A. 2001. J. Am. Chem. Soc., **123**, 1533-1534. Asymmetric total synthesis of (-)-isolaurallene.; (b) Kim, M. J., Sohn, T., Kim, D., Paton, R. S. 2012. J. Am. Chem. Soc., **134**, 20178-20188. Concise substrate-controlled asymmetric total synthesis of 2,10-dioxabicyclo[7.3.0]dodecene and 2,9-dioxabicyclo[6.3.0]undecene skeletons.