

3301 (Triterpene)

Name: Teurilene

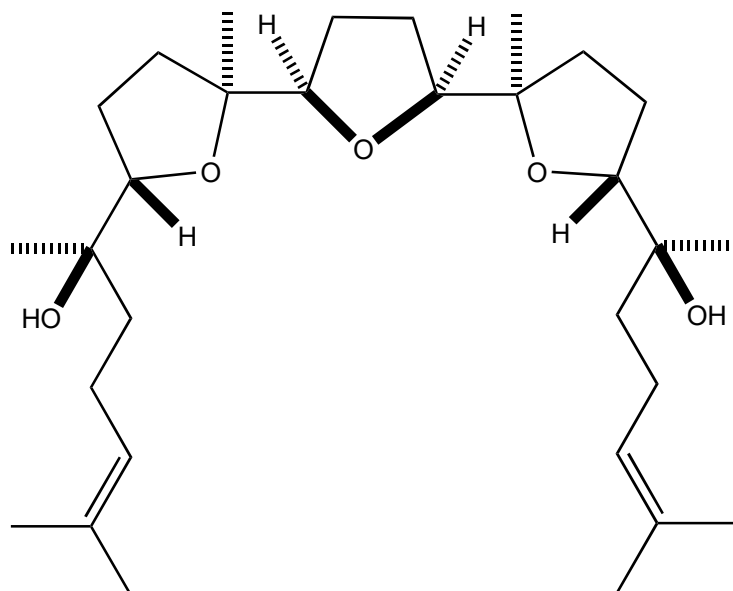
Origin: *Laurencia saitoi* (as *L. obtusa*⁽²⁾) (Teuri Island, Hokkaido, Japan)^(1,2);

Formula: C₃₀H₅₂O₅

Mol. Wt.: 492.73

Opt. Rot.: [α]_D²⁹ 0 (CHCl₃)

Mp.: 84-85



References and Notes

- (1) Suzuki, T., Suzuki, M., Furusaki, A., Matsumoto, T., Kurosawa, E., Kato, A., and Imanaka, Y. 1985. *Tetrahedron Lett.*, **26**, 1329-1332. Teurilene and thrsiferyl 23-acetate, *meso* and remarkably cytotoxic compounds from the marine red alga *Laurencia obtusa* (Hudson) Lamouroux. (IR, ¹H-NMR, ¹³C-NMR) (together with thrsiferyl 23-acetate, thrsiferol)
- (2) *Laurencia saitoi* Perestenko was confused with *Laurencia obtusa* (Hudson) Lamouroux; Masuda, M. and Abe, T. 1993. *Jpn. J. Phycol.*, **41**, 7-18. The occurrence of *Laurencia saitoi* Perestenko (*L. obtusa* auct. japon.) (Ceramiales, Rhodophyta) in Japan.
- (3) **Synthesis**; (a) Hashimoto, M., Harigaya, H., Yanagiya, M., and Shirahama, H. 1988. *Tetrahedron Lett.*, **29**, 5947-5948. A short step synthesis of teurilene. Stereocontrolled sequential double cyclization of the C₃₀-tetraenetetraol to the tandem tetrahydrofuran system.; (b) Hashimoto, M., Yanagiya, M., and Shirahama, H. 1988. *Chem. Lett.*, **17**, 645-646. Total synthesis of *meso*-triterpene ether, teurilene.; (c) Hashimoto, M., Harigaya, H., Yanagiya, M., and Shirahama, H. 1991. *J. Org. Chem.*, **56**, 2299-2311. Total synthesis of the *meso*-triterpene polyether teurilene.; (d) Morimoto, Y., Iwai, T., and Kinoshita, T. 1999. *J. Am. Chem. Soc.*, **121**, 6792-6797. Effective combination of two-directional synthesis and rhenium(VII) chemistry: Total synthesis of *meso* polyether teurilene.