4318 (C15 acetogenin)

Name: Isoprelaurefucin {5-Bromo-3-(1-bromo-propyl)-8-pent-2-en-4-ynyl-2,7-dioxa-bicyclo[4.2.1]nonane}

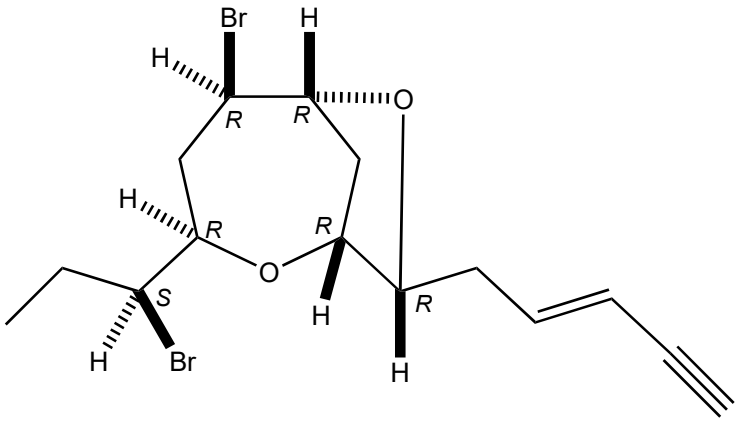
Origin: *Laurencia nipponica* (Hokkaido, Japan)[(1)];
Laurencia subopposita (La Jolla, California, USA)[(3)];

Formula: $C_{15}H_{20}Br_2O_2$

Mol. Wt.: 392.13

Opt. Rot.: $[\alpha]_D$ -54.4 ($CHCl_3$)[(1)]

Mp.: Oil



References and Notes

(1) Kurosawa, E., Fukuzawa, A., and Irie, T. 1973. Tetrahedron Lett., **14**, 4135-4138. Isoprelaurefucin, new bromo compound from *Laurencia nipponica* Yamada. (**UV, IR, ^{1}H-NMR**)

(2) **Absolute configuration**; Suzuki, M., Kurata, K., Suzuki, T., and Kurosawa, E. 1986. Bull. Chem. Soc. Jpn., **59**, 2953-2955. The absolute configuration of isoprelaurefucin.

(3) Wratten, S. J. and Faulkner, D. J. 1977. J. Org. Chem., **42**, 3343-3349. Metabolites of the red alga *Laurencia subopposita*. (**3*E*/3*Z* (2:1) mixture**) (together with isoprelaurefucin, acetyllaurefucin, laurefucin, dehydrobromolaurefucin, several sesquiterpenes)

(4) **Total synthesis**; Lee, H., Kim, H., Yoon, T., Kim, B., Kim, S., Kim, H.-D., and Kim, D. 2005. J. Org. Chem., **70**, 8723-8729. Novel "protecting group-dependent" alkylation-RCM strategy to medium-sized oxacycles: First total synthesis of (-)-isoprelaurefucin.