

4315 (C15 acetogenin)

Name: Rogioloxepane A

{2-(1-Bromo-propyl)-7-(1-chloro-hex-3-en-5-ynyl)-
2,3,6,7-tetrahydro-oxepine}

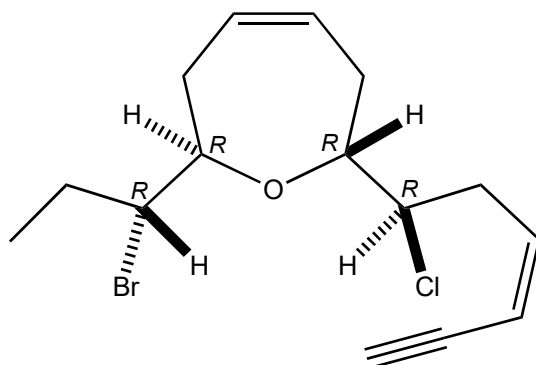
Origin: *Laurencia microcladia* (off the torrent II Rogiolo, Mediterranean, Spain)⁽¹⁾;

Formula: C₁₅H₂₀BrClO

Mol. Wt.: 331.68

Opt. Rot.: [α]_D +21 (CCl₄)

Mp.: Oil



References and Notes

(1) Guella, G., Mancini, I., Chiasera, G., and Pietra, F. 1992. *Helv. Chim. Acta*, **75**, 310-322. On the unusual propensity by the red seaweed *Laurencia microcladia* of II Rogiolo to form C₁₅ oxepanes: Isolation of rogioloxepane A, B, C, and their likely biogenetic acyclic precursor, prelogioloxepane. (¹H-NMR, ¹³C-NMR, MS)

(2) **Synthesis**; (a) Matsumura, R., Suzuki, T., Hagiwara, H., Hoshi, T., and Ando, M. 2001. *Tetrahedron Lett.*, **42**, 1543-1546. The first total synthesis of (+)-rogioloxepane A. (b) Crimmins, M. T. and DeBaillie, A. C. 2003. *Org. Lett.*, **5**, 3009-3011. Enantioselective total synthesis of (+)-rogioloxepane A.