

## 2714 (Diterpene)

Name: 10-Hydroxykahukuene B<sup>(1)</sup>; kahukuene-10-ol<sup>(2)</sup>

Origin: *Laurencia mariannensis* (Hainan and Weizhou Islands, China)<sup>(1)</sup>;

*Laurencia obtusa* (the Saudi Arabia Red Sea Coast, Jeddah, Saudi Arabia)<sup>(2)</sup>;

*Laurencia nangii* (Carrington Island and Bangii Island, Sabah, Malaysia)<sup>(3)</sup>;

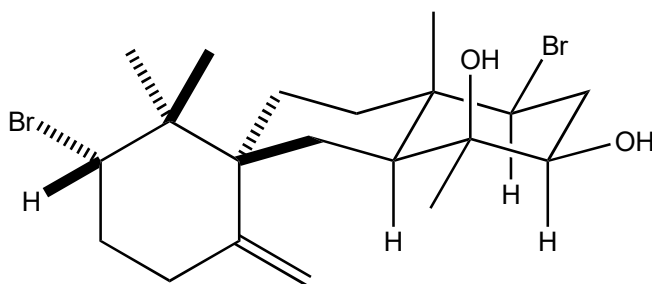
*Laurencia papillosa* (?) (Ras Abu-Bakr, 65 km north of Ras Gharib on the Suez-Gulf, Red Sea, Egypt)<sup>(4)</sup>;

Formula: C<sub>20</sub>H<sub>32</sub>Br<sub>2</sub>O<sub>2</sub>

Mol. Wt.: 464.27

Opt. Rot.: [ $\alpha$ ]<sub>D</sub><sup>18</sup> +8.1 (CHCl<sub>3</sub>)<sup>(1)</sup>; [ $\alpha$ ]<sub>D</sub><sup>28</sup> +8.1 (CHCl<sub>3</sub>)<sup>(3)</sup>

Mp.: Oil<sup>(1)</sup>; Colorless needle<sup>(3)</sup>



### References and Notes

(1) Ji, N.-Y., Li, X.-M., Li, K., Ding, L.-P., Gloer, J. B., and Wang, B.-G.. 2007. *J. Nat. Prod.*, **70**, 1901-1905. Diterpenes, sesquiterpenes, and C<sub>15</sub>-acetogenin from the marine red alga *Laurencia mariannensis*. (IR, <sup>1</sup>H-NMR, <sup>13</sup>C-NMR, MS) (together with 10-hydroxykahukuene B, 9-deoxyelatol, isodactyloxene A, laurenmariallene, elatol derivative, isorhodolaureol derivative, 10 known compounds; elatol, deschloroelatol, (+)-(10*S*)-bromo- $\beta$ -chamigrene, nidificene, obtusane, (-)-(10*R*)-bromo- $\alpha$ -chamigrene, isoafricanol, 2-(1'-bromoethyl)-2,5-dimethyl-6-(penta-2",4"-dienyl)tetrahydropyran, irieol, pinnaterpene C)

(2) Angawi, R. F., Alarif, W. M., Hamza, R. I., Badria, F. A., and Ayyad, S.-E., N. 2014. *Helv. Chim. Acta*, **97**, 1388-1395. New cytotoxic laurene-, cuparene-, and laurokamurene-type sesquiterpenes from the red alga *Laurencia obtusa*. (together with laur-2-ene-3,12-diol, 8,11-dihydro-1-methoxylaurokamuren-12-ol, (known diterpene) kahukuen-10-ol)

(3) Vairappan, C. S., Zamil, I. I., and Kamada, T. 2014. *J. Appl. Phycol.*, **26**, 1189-1198. Structural diversity and geographical distribution of halogenated secondary metabolites in red algae, *Laurencia nangii* Masuda (Rhodomelaceae, Ceramiales), in the coastal waters of North Bolneo Island. (<sup>1</sup>H-NMR, <sup>13</sup>C-NMR) (together with deoxyprepacifenol, cycloelatanene B, (3*Z*,6*R*,7*R*)-obtusenyne, (*Z*)-dihydorrhodophitin, neoirietetraol, 10-hydroxykahukuene B)

(4) Shaaban, M., Abou-El-Wafa, G. S. E., Golz, C., and Laatsch. 2021. *Mar. Drugs*, **19**, (No. 1) 35. New haloterpenes from the marine red alga *Laurencia papillosa*: Structure elucidation and biological activity. (together aplysiolic acid, 7-acetyl-aplysiol, aplysiol-7-one, 11,14-dihydroaplysia-5,11,14,15-tetrol, 11,14-dihydroaplysia-5,11,14,15-tetrol, 5-*epi*-maneolactone, known 10-hydroxykahukuene B, thysiferol, etcetera)