

## MH O 2

**Sinteza i antiproliferativna aktivnost C-6 epimera kleistenolata**

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U ovom radu želimo da saopštimo sintezu C-6 epimera kleistenolata, prirodnog proizvoda izolovanog iz listova subtropske biljke *Cleistochlamys kirkii* (Benth.) Oliv., Annonaceae.<sup>1</sup> Kao polazno jedinjenje primenjena je D-riboza. Pored toga, biće prikazani i rezultati citotoksičnosti **10**, prema nekoliko malignih i jednoj normalnoj ćelijskoj liniji.

**Synthesis and antiproliferative activity of C-6 epimer of cleistenolate**

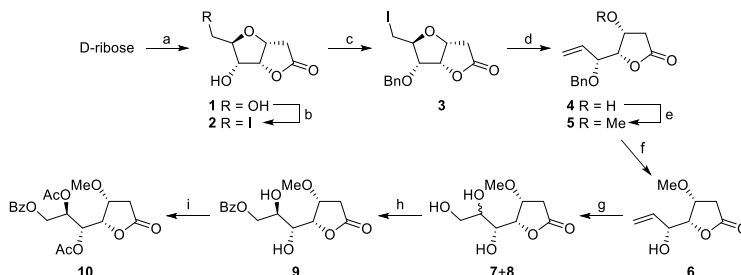
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Herein, we present the synthesis of C-6 epimer of cleistenolate, a natural product isolated from the leaves of subtropical plant *Cleistochlamys kirkii* (Benth.) Oliv., Annonaceae.<sup>1</sup> D-ribose was used as a starting material (Scheme 1). Additionally, cytotoxicity of **10** against several malignant human cell lines and one normal cell line will be presented.



Scheme 1. a) Meldrum's acid, <sup>t</sup>BuNH<sub>2</sub>, DMF; b) Ph<sub>3</sub>P, Imidazole, I<sub>2</sub>, THF; c) BnBr, Ag<sub>2</sub>O, AgOTf, CH<sub>2</sub>Cl<sub>2</sub>; d) Zn dust, 4:1 THF/H<sub>2</sub>O; e) MeI, Ag<sub>2</sub>O, AgOTf, Et<sub>2</sub>O; f) TiCl<sub>4</sub>, CH<sub>2</sub>Cl<sub>2</sub>; g) 2.5 w % OsO<sub>4</sub> in <sup>t</sup>BuOH, NMO, 10:1 Me<sub>2</sub>CO/H<sub>2</sub>O; h) BzCl, CH<sub>2</sub>Cl<sub>2</sub>, Py; i) Ac<sub>2</sub>O, p-TsOH·H<sub>2</sub>O.

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1. S. S. Nyandoro, J. J. E. Muniss, A. Gruhonjic, S. Duffy, F. Pan, R. Puttreddy, J. P. Holleran, P. A. Fitzpatric, J. Pelletier, V. M. Avery, K. Rissanen, M. Erdélyi, *Journal of Natural Products* **80** (2017) 114–125.