



# Hypoestenonols A and B, New Fusicoccane Diterpenes from *Hypoestes forskalei*

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## Abstract:

Two new fusicoccane diterpenes hypoestenonols A (1) and B (2), along with two known compounds verticillarone (3) and hypoestenone (4) were isolated from the n-hexane fraction of the methanolic extract of the aerial parts of *Hypoestes forskalei* (Acanthaceae) growing in Saudi Arabia. The structures were established by UV, IR, HRESIMS, 1D (<sup>1</sup>H and <sup>13</sup>C NMR) and 2D (<sup>1</sup>H-<sup>1</sup>H COSY, HSQC, HMBC, and NOESY) NMR experiments, in addition to comparison with literature data. The total MeOH extract and isolated compounds were tested for their antiprotozoal and cytotoxic activities. The MeOH extract showed moderate activity against *Plasmodium falciparum*, *Leishmania infantum*, *Trypanosoma cruzi*, and *Trypanosoma brucei* with IC<sub>50</sub> values of 8.8, 8.1, 9.1 and 8.1 μg/mL without cytotoxicity (IC<sub>50</sub> >64 μg/mL on MRC5 cells). A very weak in vitro antiplasmodial effect was observed for hypoestenonol A (1) (IC<sub>50</sub> 18.9 μM), verticillarone (3) (IC<sub>50</sub> 25.1 μM), and hypoestenone (4) (IC<sub>50</sub> 16.7 μM).

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