

Ent-abietane diterpenoids from *Suregada zanzibariensis* Baill. (Euphorbiaceae), their cytotoxic and anticancer properties.

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ABSTRACT:

The stem bark extract of *Suregada zanzibariensis* afforded a previously undescribed ent-abietane diterpenoid trivially named mangiolide (1) and a known jolkinolide B (2) via anticancer bioassay-guided fractionation. The CH₂Cl₂:MeOH extract of *S. zanzibariensis* was initially analysed for its anticancer properties against three cancer cell lines, renal (TK10), melanoma (UACC62), and breast (MCF7) and was found to be potent at low µg/mL ranges. Compound 1, 6 α -acetoxy-14-keto-ent-abieta-7(8),13(15)-diene-16,12-olide (mangiolide) inhibited the growth of renal (TK10) with a GI₅₀ of 0.02 µg/mL; a GI₅₀ of 0.03 µg/mL for melanoma (UACC62) and a GI₅₀ of 0.05 µg/mL for breast (MCF7) cancer cell lines. Compound 2, 8,13-diepoxy-13,15-ent-abietene-16,12-olide (jolkinolide B) inhibited the growth (GI₅₀) of the cell lines at 3.31 µg/mL for renal (TK10), 0.94 µg/mL for melanoma (UACC62) and 2.99 µg/mL for the breast (MCF7). The structures were established on the basis of their spectroscopic analysis and the absolute stereostructures assigned using electronic circular dichroism (ECD).