Crotonkinins A and B and related diterpenoids from Croton tonkinensis as anti-inflammatory and antitumor agents


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Abstract: Cytotoxicity-guided phytochemical investigation of a methanolic extract of Croton tonkinensis afforded two new kaurane diterpenoids (1, 2) and 10 known ent-kaurane-type diterpenoids (3-12). The structures of 1 and 2 were based on analysis of spectroscopic and mass spectral data. Compounds 3-12 were identified by comparison of their spectroscopic and physical data with those reported in the literature. Selected compounds from this plant were examined for cytotoxic and anti-inflammatory activities. Compounds 4 and 9 showed the highest cytotoxic activity against the tested tumor cell lines. Compounds 3, 4, 6, 8, 9, and 11 had IC50 values less than 5 μM and were more potent than the nonspecific NOS inhibitor L-NAME in inhibiting LPS-induced NO production. © 2007 American Chemical Society and American Society of Pharmacognosy.

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