

Two new xanthenes from the roots of *Cratoxylum cochinchinense* and their cytotoxicity

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Abstract

Two new xanthenes namely cratochinone A (1) and cratochinone B (2), along with 16 known xanthenes, were isolated from the roots of *Cratoxylum cochinchinense*. Their structures were characterized by spectroscopic methods, especially 1D and 2D NMR as well as comparison with those reported in the literature for known xanthenes. All isolated compounds were evaluated for their cytotoxicity against five human cancer cell lines (KB, HeLa S-3, HT-29, MCF-7 and Hep G2 cell lines). Compounds 2, 5, and 7 showed significant cytotoxic effects against all cell lines with IC₅₀ values in the range of 0.91–9.93 μ M, while 10 exhibited cytotoxicity against the KB, HeLa S-3, and HT-29 cells with IC₅₀ values of 7.39, 6.07, and 8.11 μ M, respectively. Compound 12 exhibited cytotoxicity against both KB and HeLa S-3 cells with IC₅₀ values of 7.28 and 9.84 μ M.

Speaker Publications:

1. Natrsanga P., Jongaramruong J, Rassamee K, Siripong P., Tip-pyang S (2020) Two new xanthenes from the roots of *Cratoxylum cochinchinense* and their cytotoxicity. *Journal of Natural Medicines* 74:467–473.
2. Kaennakam S, Mudsing K, Rassamee K, Siripong P, Tip-pyang S (2019) Two new xanthenes and cytotoxicity from the bark of *Garcinia schomburgkiana*. *Journal of Natural Medicines* 73(1):257-261.
3. Sukandar ER, Kaennakam S, Rassamee K, Ersam T, Siripong P, Tip-Pyang S (2019) Tetrandraxanthenes A-I, Prenylated and Geranylated Xanthenes from the Stem Bark of *Garcinia tetrandra*. *Journal of Natural Products* 82(5):1312-1318.
4. Kaennakam S, Sukandar ER, Siripong P, Rassamee K, Tip-Pyang S (2019) Veluflavanones A-P, cytotoxic geranylated flavanones from *dalbergia velutina* stems. *Journal of Natural Products* 82(2):276-282.
5. Kaennakam S, Sukandar ER, Siripong P, Rassamee K, Tip-Pyang S (2019) Cytotoxic chalcones and isoflavones from the stems of *Dalbergia velutina*. *Phytochemistry Letters* 31:187-191.

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Biography:

Associate Professor Dr. Santi Tip-pyang has completed his PhD at the age of 34 years from Mississippi State University in the USA in 1990. He is the lecturer at Department of Chemistry, Faculty of Science, Chulalongkorn University. He has published more than 60 papers in reputed journals.