

Antibacterial and cytotoxic xanthenes from *Cratoxylum cochinchinense*

Mahabusarakam W., Rattanaburi S., Phongpaichit S., Kanjana-Opas A.

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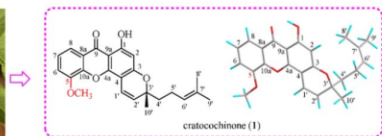
Polyprenylated xanthenes with potential anti-inflammatory and anti-HIV effects from the stems and leaves of *Cratoxylum cochinchinense* (Lour.) Blume

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ABSTRACT

A phytochemical study on the stems and leaves of *Cratoxylum cochinchinense* (Lour.) Blume resulted in the isolation and characterisation of a new polyprenylated xanthone, cratocochinone (**1**), as well as seven known analogues, fuscaxanthone K (**2**), pruniflorone Q (**3**), 1,3,5,8-tetrahydroxy-2-(3-methylbut-2-enyl)-4-(3,7-dimethylocta-2,6-dienyl) xanthone (**4**), cochinensoxanthone (**5**), cratoxylum-xanthone B (**6**), cochinchinone I (**7**) and cochinchinone K (**8**). The chemical structure of **1** was determined by comprehensive spectral analyses. The known compounds **2–8** were identified by comparing their experimental spectroscopic data with those reported data in the literature. The anti-inflammatory and anti-HIV effects of all isolates **1–8** were evaluated. As a result, compounds **1–8** showed remarkable inhibitory effects against nitric oxide (NO) production induced by lipopolysaccharide in mouse macrophage RAW 264.7 cells showing IC_{50} values ranging from 0.68 ± 0.06 to $10.27 \pm 0.18 \mu M$. Meanwhile, compounds **1–8** displayed notable anti-HIV-1 reverse transcriptase (RT) effects with EC_{50} values ranging from 0.19 to $10.72 \mu M$.



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