Antifungal Garcinia Acid Esters from the Fruits of *Garcinia atroviridis*


Two new garcinia acid derivatives, 2-(butoxycarbonylmethyl)-3-butoxycarbonyl-2-hydroxy-3-propanolide and 1,1'-dibutyl methyl hydroxycitrate, were isolated from the fruits of *G. atroviridis* guided by TLC bioautography against the fungus *Cladosporium herbarum*. The structures of these compounds were established by spectral analysis. The former compound represents a unique β-lactone structure and the latter compound is most likely an artefact of garcinia acid (= hydroxycitric acid). Both compounds showed selective antifungal activity comparable to that of cycloheximide (MID: 0.5 µg/spot) only against *C. herbarum* at the MIDs of 0.4 and 0.8 µg/spot but were inactive against bacteria (*Bacillus subtilis*, methicillin-resistant *Staphylococcus aureus*, *Pseudomonas aeruginosa* and *Escherichia coli*), other fungi (*Alternaria* sp., *Fusarium moniliforme* and *Aspergillus ochraceous*) including the yeast *Candida albicans*. 