

**Title of Article :** Phytosterols from *Spondias mombin* Linn. with antimycobacterial activities.

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**Outlet:** *African Journal of Biomedical Research.* [2013] 16 (1):182-186. ISSN 1119-5096

**Abstract:** The growing problems of tuberculosis have led to the search for new anti-Mtb agents from higher plants. The stem bark of *Spondias mombin* was evaluated for its *in vitro* activity against *Mycobacterium tuberculosis* (H37Rv strain). Bioassay-guided fractionation of the methanol extract was carried out by Vacuum Liquid Chromatography (VLC) on Silica gel (230-400 mesh) and purification was done using HPLC and TLC. *In vitro* antimycobacterial susceptibility was performed by a fluorometric microplate alamar blue assay (MABA) and percentage mycobacterial inhibition was calculated. The structures of the isolated compounds were established by spectroscopic analysis. The active VLC fraction exhibited 91% inhibition against *M. tuberculosis* H37Rv at a concentration of 40 µg/mL. The HPLC fraction SMi-15 containing compounds **1** and **2** showed 92.8% inhibition against *M. tuberculosis*. Two new antimycobacterial phytosterols were isolated from the stem bark of *S. mombin* and the structures were identified as mombintane I (**1**) and mombintane II (**2**). The stem bark extractives of *S. mombin* contain antitubercular principles of the class phytosterol and support an important potential of triterpenoids.

**Keywords:** *Spondias mombin*, *Mycobacterium tuberculosis*, Antimycobacterial, Mombintane I, Mombintane II