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In vitro cytotoxic and in vivo anxiolytic study of methanolic crude extract of *Sterculia villosa* seeds (Article)

Barua, S.^a, Bannah, H.^a, Hasan, M.M.^a, Azam, S.^a, Quador, M.^b, Jainul, M.A.^c, Azad, A.K.^d, Uddin, A.B.M.H.^e [✉](#) [👤](#)^aDepartment of Pharmacy, International Islamic University Chittagong, Bangladesh^bDepartment of Pharmacy, Bangladesh University, Bangladesh^cDepartment of Biomedical Science, Faculty of Allied Health Sciences, International Islamic University, Malaysia[View additional affiliations](#) [v](#)

Abstract

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We have aimed to evaluate the in vitro cytotoxic and in vivo anxiolytic and sedative activities of the methanolic extract of *Sterculia villosa* roxb seeds. The dried powder of the seeds was extracted with methanol which was then tested to ascertain the neuropharmacological and cytotoxic potentials. The methanolic extract of *Sterculia villosa* roxb were subjected to Brine Shrimp lethality bioassay for possible cytotoxicity having LC₅₀ of 8.672µg/ml. However, fractions produced concentration dependent increase in percent of mortality of Brine Shrimp nauplii indicates the presence of cytotoxic property. We also have studied for possible sedative and anxiolytic activity of the methanolic seed extract of *Sterculia villosa* roxb in mice. This study includes hole cross, open field, thiopental-sodium induced sleeping time and elevated-plus maze (EPM) tests at the dose of 200 mg/kg while on the peripheral and central nervous system the extract mild to moderately decreased the locomotor activity of mice in hole cross, open field and EPM test. However, the extract moderately has minimized the onset of sleep and slightly has maximized the duration of sleep while administered with thiopental sodium. © 2018, SILAE (Italo-Latin American Society of Ethnomedicine). All rights reserved.

Reaxys Database Information

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Author keywords

[CNS depressant activity](#) [Cytotoxicity](#) [Locomotor activity](#) [Sedative properties](#)

Indexed keywords

EMTREE drug terms:

[anxiolytic agent](#) [cytotoxic agent](#) [diazepam](#) [plant extract](#) [sedative agent](#)
[Sterculia villosa extract](#) [thiopental](#) [unclassified drug](#)

EMTREE medical terms:

[animal experiment](#) [animal model](#) [Artemia](#) [Article](#) [bioassay](#) [controlled study](#)
[cytotoxicity](#) [elevated plus maze test](#) [in vitro study](#) [in vivo study](#) [LC50](#) [locomotion](#)
[Malvaceae](#) [mortality](#) [mouse](#) [nonhuman](#) [open field test](#) [plant seed](#) [sedation](#)
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