Journal of Innovations in Pharmaceutical and Biological Sciences (JIPBS)
ISSN: 2349-2759
Available online at www.jipbs.com

Research article

A flavone compound isolated from the stem bark of *Butea frondosa*: A broad spectrum bactericide especially active on Bacillus

Jiten Mishra[*1], Digambar Bisoi[2], Nityashree Mohapatra[3]

[1]*Roland Institute of Pharmaceutical Sciences, Berhampur, Orissa-760010, India.*
[2]*Sivananda College of Pharmacy, Berhampur, Orissa-760010, India.*

Received on: 02/08/2020, Revised on: 09/08/2020, Accepted on: 11/08/2020, Published on: 16/08/2020.

***Corresponding Author: Jiten Mishra,** Assistant Professor, D. Pharm HOD, Roland Institute of Pharmaceutical Sciences, Berhampur (Gm), Orissa-760010, India.
Email id: hoddpharm@rips.ac.in / jitenmishra000@gmail.com

Keywords: Butea frondosa; Quinoline : Broad spectrum bactericide; Antimicrobial activity.

Vol. 7 (3): 59-63, Jul-Sep, 2020.

Abstract

The Quinoline compound isolated from the ethyl acetate fraction of *B. Frondosa* stem bark showed some significant antimicrobial activity when tested against 106 different bacterial strains belonging to 9 different genera of both Gram-positive and Gram- negative. Minimuim inhibitory concentration of the drug were measured using an agar dilution technique. Twenty four of 36 strains of *Staphylococcus aureus* were inhibited by 100-200 mg/l of drug. This drug also inhibited strains of *Bacillus spp*, *Shigella spp, Salmonella spp* and *Pseudomonas spp* at a concentration of 100-400 mg/l. Other bacteria including *Escherichia* coli, *Vibrio cholerae* and *V. parahaemolyticus* were moderately sensitive to drug. In the *in vivo* studies this compound offered significant protection to swiss albino mice at a concentration of 80 µg /mouse ($P<0.001$) when challenged with 50 median lethal dose of *Salmonella typhimurium* NCTC 74.