

**ANTIBACTERIAL ACTIVITY OF PLUMBAGIN AND ROOT EXTRACTS  
OF *PLUMBAGO ZEYLANICA* L.**

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This work assesses the antibacterial activity of plumbagin (5-hydroxy-2-methylnaphthalene-1,4-dione) and of methanol, chloroform and aqueous extracts of *Plumbago zeylanica* L. root against various pathogenic bacteria, and the minimum inhibitory concentrations (MICs). Plumbagin and chloroform extracts of *Plumbago zeylanica* L. root showed antibacterial activity against *Escherichia coli*, *Salmonella typhi* and *Staphylococcus aureus*. Inhibition against *Klebsiella pneumoniae*, *Serratia marcescens* and *Bacillus subtilis* was moderate, and lower against *Proteus vulgaris* and *Pseudomonas aeruginosa*. The methanolic extract exhibited moderate activity and the aqueous extract weak activity against the bacterial strains as assessed by disc diffusion assays. The bioactive compound plumbagin and extract of *Plumbago zeylanica* root show a wide spectrum of antibacterial activity. The compound shows promise as a new drug for various bacterial infectious diseases.

**Key words:** *Plumbago zeylanica*, Plumbaginaceae, antimicrobial screening, plumbagin, antibiotics, minimum inhibitory concentration (MIC).