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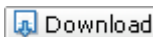
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Optimization of process parameters for improved production of bioactive metabolite by a novel endophytic fungus *Fusarium* sp. DF2 isolated from *Taxus wallichiana* of North East India

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Abstract

An endophytic fungus having antifungal and antibacterial properties was isolated from *Taxus wallichiana* of Arunachal Pradesh, India. On the basis of morphological and molecular characteristics, the fungus was identified as *Fusarium* sp. and designated as DF2. The fungus was optimized for growth and maximum production of the antimicrobial agent. Media with 5% leaf extract (w/v) supplemented with 0.1% dextrose as carbon and yeast extract as nitrogen source favored the growth with temperature optimum $25 \pm 2^\circ\text{C}$ and pH 6. Incubation period of 10 days was observed optimum for growth and production of antimicrobial agent. Phenylalanine and dextrose enriched basal medium promoted the antimicrobial agent production, whereas methionine amended in combination with glucose promoted higher biomass accumulation. The TLC purified active compound with UV λ -max 270 nm in ethyl acetate has got the lowest minimum inhibitory concentration (MIC) against *Bacillus subtilis*, *Staphylococcus aureus* and *Escherichia coli* and highest against *Pseudomonas aeruginosa*.
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Author Keywords

Antimicrobial agent; Endophytes; *Fusarium* sp.; MICReferences (40) [view in table layout](#)Select: Page

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