International Journal of ChemTech Research
CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.10 No.1 pp 126-132, 2017

Physicochemical characterization and antioxidant property of powdered basidiocarp of wild *Lentinus sajor-caju*

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Abstract : *Lentinus sajor-kaju* is highly valued as nutritious food in many Asian and European countries. Recently it has shown several medicinal potentials also. The present study emphasizes physicochemical features and antioxidant properties of dried powder of wild *L. sajor-caju*. Pharmacological parameters of the dried sieved powder were investigated such as powder micrscopy, fluroscence characteristics, and organoleptic analysis. In addition, methanolic extract was prepared where extractive value was 8.2 %. Chemical profiling of the extract revealed presence of different phytochemical constituents like phenols, flavonoids, ascorbic acid, β carotene and lycopene. On the other hand, HPLC was conducted to determine phenolic fingerprint of the methanolic extract of this macrofungus. Antioxidant activity was evaluated through DPPH radical scavenging assay (EC_{50} 0.43 mg/ml) and total antioxidant capacity determining assay. Results demonstrate that the mushroom could be a promising candidate for future neutraceuticals.

Keywords: Antioxidant property, HPLC, Microscopic characters, Phytochemicals, Quality assessment.

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