Antioxidant Potential of Ethanol and Ethyl Acetat Extract of Ganoderma sp. Mycelium

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Abstract	Ganoderma sp. Banyumas 1 isolate that reffered as Ganoderma sp. is a new discovered isolate from Banyumas, Central Java, Indonesia expected to have a potential properties of antioxidant of medicinal mushroom. This study aimed to determine the antioxidant potential and the appropriate solvent for itÃƒÂ¢Ã‚Ã‚Â™s extracting from Ganoderma sp. This research result showed that ethyl acetate was able to extract as many as 15.57%, while etanol was only able to extract 3.87%ÃƒÂ,Ã‚ active compounds from dried 28 days old Ganoderma sp. mycelium cultivated in the Mushroom Complete Medium (MCM). Extract of ethyl acetate (non-polar) extraction of mycelium of Ganoderma sp. had a potential character as an antioxidant source and performed a better result than from ethanolic (polar) extraction as shown in the IC50 value. Extract from ethyl acetate extraction had an average IC50 value smaller than ÃƒÂ,Ã‚ from ethanolic extract (581.80 < 1285.67). Extract from ethyl acetate extraction resulted in a higher amount of phenol than that ethanolic extract 29.23 < 57.67. Inhibition percentage of both extracts at 65% was known to occur at concentration of 1000 ppm for ethyl acetate extract and 2000 ppm for ethanolic extract. An important finding was that ethyl acetate can be used as appropriate solvent for extracting antioxidant compound better than ethanolic. In conclusion, the mycelium extract of Ganoderma sp. extracted with ethyl acetate and ethanol as solvent is potential to be used as a source of natural antioxidants. This research result has benefit in developing potency of local resources as herbal resources.
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