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Volume 19, Issue 1, 1 April 2020, Pages 5-12

## Medicinal properties screening of *Mallotus paniculatus* extract (Article)

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### Abstract

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**Introduction:** Traditionally, *Mallotus paniculatus* (Balik Angin) plant is used in the treatment of various diseases in rural areas such as remedy after childbirth, wound healing and fever. In this present study, four medicinal properties of the plant were investigated which included antibacterial, antifungal, anticancer and antioxidant activities. **Materials and Methods:** Potential medicinal compounds were extracted from the plant leaves by sonication with 3 different solvents namely ethanol, ethyl acetate and hexane respectively. The antibacterial and antifungal properties were determined using disc diffusion agar and broth dilution assay, the antioxidant activity by DPPH scavenging assay and the anticancer effect by MTT assay. **Results:** From the screening of the medicinal properties, *M. paniculatus* leave extracts were shown to possess antibacterial, antioxidant and anticancer properties but not antifungal properties. Ethanolic and ethyl acetate extracts of the leave were active against gram positive bacteria (*Staphylococcus aureus* and *Bacillus subtilis*) but not gram negative bacteria (*Pseudomonas aeruginosa* and *Escherichia coli*). The antioxidant activity of the ethanolic crude extract was high; with IC<sub>50</sub> of 30 µg/ml comparable with the positive controls; ascorbic acid and butylated hydroxytoluene (BHT). Both ethanolic and ethyl acetate extracts were cytotoxic against breast cancer (MCF7), colon cancer (HT-29), cervix cancer (Hela) cell lines. **Conclusion:** *M. paniculatus* leave extract has many potential medicinal values for further studies. © 2020 International Islamic University Malaysia.

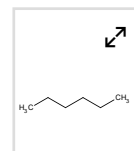
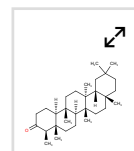
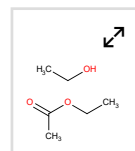
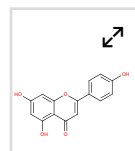
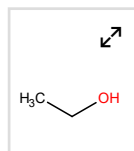
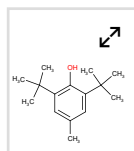
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