

Cytotoxic Activity of *Parkia javanica* Merr. and *Parkia speciosa* Hassk. against Human Cancer Cell Lines

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Abstract : The ethanolic and aqueous extracts of *Parkia javanica* Merr. germinating seeds and *Parkia speciosa* Hassk. seeds were evaluated for cytotoxic activity against three different types of human cancer cell lines including colon cancer (LS174T), breast cancer (MCF-7) and prostate cancer (PC3) using sulforhodamine B (SRB) assay. The fresh plant parts were divided into 2 parts. The first part was extracted by maceration with 95% ethanol for 3 days and then filtered, and the filtrates were evaporated by rotary evaporator. The other part was squeezed and filtered. Then the filtrates were dried by freeze dryer. The screening found that the aqueous extract of *P. javanica* Merr. germinating seeds exhibited more than 70% inhibition (at concentration 50 µg/ml) against all types of human cancer cells. The aqueous extract of *P. javanica* Merr. germinating seeds showed the highest cytotoxic activity against MCF-7 with the IC50 value as 5.63 µg/ml. The aqueous extract of *P. javanica* Merr. germinating seeds also showed high cytotoxic activity against PC3 and LS174T with the IC50 values as 10.79 and 11.40 µg/ml, respectively. In conclusion, *P. javanica* Merr. germinating seed is a natural source of anticancer activity and further research to isolate active compounds from this plant should be undertaken.

Keywords : cytotoxic activity, *Parkia javanica* Merr., *Parkia speciosa* Hassk., human cancer cell lines

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