



Curcumin Analysis and Cytotoxic Activities of Some *Curcuma xanthorrhiza* Roxb. Accessions

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Abstract : Curcumin in rhizome of *Curcuma xanthorrhiza* Roxb. have potential pharmacological activities. In the present study, curcumin contents and cytotoxic activities of some *C. xanthorrhiza* accessions were evaluated. The curcumin contents were analyzed by HPLC. Cytotoxic studies using brine shrimp lethality test and Vero and MCF-7 cell line cultures were carried out. The curcumin content varied between 24.70 ± 10.72 mg g⁻¹ in accession of SG (Sragen) to 54.09 ± 3.48 mg g⁻¹ in accession of WG (Wonogiri). All accessions were found to be effective in general toxicity against brine shrimps. Accession of WG showed in vitro cytotoxicity against Vero and MCF-7 cell line. Accession of WG indicated the possibility of selecting high quality clone for curcumin production and anticancer in MCF-7 cell line.

Key words: Curcumin, MCF-7 cell line, BSLT, Vero cell line, *Curcuma xanthorrhiza* RoxB., Temulawak.

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