

Abstract

Medicinal plants with lipase inhibitory activity were ethanol extracts of stem of *Cymbopogon citratus* Stapf., root of *Curcuma longa*, seed of *Piper nigrum* and fruit of *Solanum torvum* with %inhibition of 71 ± 5 , 75 ± 1 , 76 ± 2 and $87 \pm 9\%$, respectively and water extracts of root of *Boesenbergia rotunda*, leaf of *Rhinacanthus nasutus*, fruit of *Ziziphus mauritiana*, fruit of *Garcinia atroviridis*, root of *Alpinia galangal*, receptacle of *Hibiscus sabdariffa* and leaf of *Metha cordifolia* with %inhibition of 71 ± 5 , 76 ± 1 , 77 ± 10 , 77 ± 7 , 88 ± 1 , 91 ± 1 , $92 \pm 2\%$. Fruit of *S. torvum* was selected for next step as active plant. Ethyl acetate crude extract of fruit of *S. torvum* showed the strongest inhibition activity as $67.2 \pm 3.6\%$ inhibition and the second was hexane crude extract with value of $46.0 \pm 6.7\%$ inhibition. Therefore, hexane and ethyl acetate crude extracts were isolated and purified to obtain **Hex 1** and **EA 1**, respectively. **Hex 1** was a mixture of steroids, 17-(1,5-dimethylhexyl)-10,13-dimethyl-2,3,4,7,8,9,10,11,12,13,14,15,16,17-tetradecahydro-1*H*-cyclopenta[α]phenanthren-3-ol, campesterol, β -sitosterol and stigmasterol and showed weak lipase inhibitory activity with IC_{50} 82.56 mg/ml. **EA 1** was 7-hydroxy-6-methoxycoumarin (scopoletin) and exhibited weak lipase inhibitory activity with IC_{50} 91.98 mg/ml.