

Cytotoxicity effect of Aaptamine and its derivatives on *Acanthamoeba castellanii* (IMR isolate)

ABSTRACT

Acanthamoeba is a free-living amoebae that is ubiquitously present in various natural environments. In this study, several of Aaptamine derivatives (2-5) were synthesized and evaluated for their cytotoxicity effect against *Acanthamoeba castellanii* (IMR isolate). The *Acanthamoeba* viability was determine using range of concentration from 0 until 50 $\mu\text{g/mL}$ for each compounds. The treatment was done for 72 hours and Eosin staining was used to determine the cell viability. From the result obtained, Aaptamine (1) and its derivatives (2-5) have significant effect toward inhibition growth on *Acanthamoeba* with of 1,4-dibenzylaaptamine (5) was observed as the most potent compound as anti-amoeba agent.

Keyword: Aaptamine derivatives; *Acanthamoeba castellanii*