In vitro antiviral activity of Clinacanthus nutans on varicella-zoster virus
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Abstract
The effect of crude extract of Clinacanthus nutans (CN) was studied to determine the antiviral activity against varicella-zoster virus (VZV) with three different treatments. Specifically the effects studied were that of CN extract on (I) cells before infection (pre-treatment); (II) virus infected cells (post-treatment); and (III) virus directly (inactivation assay). After treatment, the virus was detected by methods of DNA hybridization and plaque reduction assay. It was shown that CN had an effect on VZV depending on concentration and methods of treatment. Via DNA hybridization, the ID50 (50% inhibitory dose) of pre-treatment, post-treatment, and inactivation assay was by weight per volume dilution 1:2,000, 1:6,000 and > 1:18,000, respectively; by plaque reduction assay, they were 1:2,000, 1:4,800 and 1:9,600, respectively. From the present findings, based on the result of inactivation assay, it was recognized that the in vitro antiviral activity of CN might be a direct interaction of the extract with the virus.