

## INTISARI

Penelitian ini tentang pengaruh kadar etanol sebagai cairan penyari terhadap kadar piperin pada pembuatan preparat galenik ekstrak merica (*Piper nigrum* L.) secara perkolasi. Tujuan penelitian untuk mengetahui kadar etanol terbaik yang digunakan sebagai cairan penyari untuk membuat ekstrak merica ditinjau dari kadar piperinnya. Piperin adalah alkaloida basa lemah yang terdapat pada merica yang dimanfaatkan sebagai analgetik, antipiretik, antiseptik, antikarsinogenik, dan antianoreksia.

Penelitian bersifat eksperimental murni dengan jenis rancangan *post test only control group design*. Awal penelitian dimulai dengan membuat preparat galenik berupa ekstrak yaitu ekstrak merica secara perkolasi. Etanol yang digunakan sebagai penyari memiliki tiga variasi kadar yaitu 30%, 70% dan 90%. Setelah itu dilakukan uji kualitas ekstrak meliputi bobot jenis dan kadar susut pengeringan. Piperin yang terekstraksi ditentukan secara kualitatif dengan kromatografi lapis tipis (KLT) menggunakan fase diam silika gel GF 254 dan fase gerak toluen : etil asetat (70 : 30). Bercak diidentifikasi dengan pereaksi anisaldehyde-asam sulfat. Berdasarkan hasil KLT, ekstrak merica mengandung senyawa alkaloida piperin. Selanjutnya kadar piperin ditentukan dengan KLT-densitometri. Penelitian menghasilkan kadar piperin optimal sebesar 28,47 mg/ml dengan mengekstraksi merica menggunakan etanol 90% dengan bobot jenis ekstrak 0,145 dan susut pengeringan ekstrak 6,52%.

## ABSTRACT

The research was on the effect of ethanol concentration as the extraction liquid towards piperine concentration in the making of pepper extract (*Piper nigrum* L.) as galenic preparation by percolation. The research was aimed to find the best concentration of ethanol used as extraction liquid to produce pepper extract, based on its piperine concentration. Piperine is a weak base alkaloid found in pepper which is used as an analgesic, an antipyretic, an antiseptic, an anticarcinogenic, and an anorexia.

The research was an experimental research with the method called post test only control group design. Study began with making galenic preparation in the form of an extract, pepper extract made by percolation. Ethanol used as an extraction liquid has three variations in concentration 30%, 70%, and 90%. After that, a quality test was done on the extracts including weight per millilitre and dried up shrink concentration. The piperine extract can be determined by a qualitative analysis by thin layer chromatography (TLC), used silica gel GF 254 as stationary phase and toluene : ethyl acetate (70 : 30) as mobile phase. The spots were identified using anisaldehyde-sulfuric acid. The TLC showed that the pepper extract contained piperine. After that, piperine concentration was determined using TLC-densitometry. The research showed that the best liquid extraction was 90% ethanol which gave 28.47 mg/ml piperine, extract weight per millilitre was 0.145 and dried up shrink concentration was 6.52 %.