ABSTRAK

Mutu sediaan farmasi seperti tablet harus memenuhi standar sesuai Farmakope Indonesia. Kemajuan metode analisis terus berkembang seiring dengan peningkatan teknologi dan ilmu pengetahuan. Penelitian ini bertujuan untuk mengembangkan dan memvalidasi metode analisis kuantitatif lisinopril dalam sediaan tablet menggunakan teknik *Spektrofotometri UV-Vis* serta melakukan uji disolusi terhadap salah satu merek dagang lisinopril yang beredar di Indonesia. Salah satu metode yang dapat digunakan untuk menjamin kualitas sediaan tablet lisinopril adalah *Spektrofotometri UV-Vis,* namun metode ini perlu divalidasi terlebih dahulu untuk memastikan keakuratannya. Validasi dilakukan dengan menguji parameter linearitas, akurasi, presisi, batas deteksi (LOD), dan batas kuantifikasi (LOQ). Hasil penelitian menunjukkan kurva kalibrasi lisinopril pada konsentrasi 8–16 ppm memberikan hubungan linier dengan nilai R^2 sebesar 0,982. Uji akurasi menghasilkan *% recovery* sebesar 103,15%–110,72%, dengan %RSD 0,1% yang menunjukkan presisi tinggi namun akurasi pada konsentrasi tinggi perlu evaluasi. Nilai LOD dan LOQ masing-masing sebesar 2,66 ppm dan 8,06 ppm, menunjukkan metode ini cukup sensitif. Uji disolusi selama 720 menit menunjukkan pelepasan zat aktif yang cepat dan stabil dengan rata-rata di atas 90% hingga menit ke-600, kemudian menurun menjadi 79,87%. Penetapan kadar lisinopril dalam tablet menunjukkan hasil 96,06%, masih sesuai standar (90–110%). Kesimpulannya, metode *Spektrofotometri UV-Vis* yang dikembangkan valid dan dapat digunakan untuk analisis rutin serta pengawasan mutu sediaan tablet lisinopril.

Kata Kunci: Lisinopril, Spektrofotometri UV-Vis, Validasi Metode, Uji Disolusi, Tablet

ABSTRACT

The quality of pharmaceutical dosage forms such as tablets must meet the standards set by the Indonesian Pharmacopoeia. Analytical methods continue to advance alongside technological and scientific developments. This study aims to develop and validate a quantitative analytical method for lisinopril in tablet dosage form using UV-Vis spectrophotometry and to conduct a dissolution test on one of the marketed brands of lisinopril in Indonesia. UV-Vis spectrophotometry is one of the methods that can be used to ensure the quality of lisinopril tablets; however, it must first be validated to confirm its accuracy. Method validation was performed by evaluating parameters such as linearity, accuracy, precision, limit of detection (LOD), and limit of quantification (LOQ). The calibration curve for lisinopril in the concentration range of 8–16 ppm showed a linear relationship with an R² value of 0.982. Accuracy testing resulted in recovery values ranging from 103.15% to 110.72%, with a %RSD of 0.1%, indicating high precision although accuracy at higher concentrations needs further evaluation. LOD and LOQ were found to be 2.66 ppm and 8.06 ppm, respectively, indicating good sensitivity. The dissolution test over 720 minutes showed a rapid and stable release of the active substance, remaining above 90% until the 600th minute before decreasing to 79.87%. The determination of lisinopril content in tablets showed an average of 96.06%, within the pharmacopeial range (90–110%). In conclusion, the developed UV-Vis spectrophotometric method is valid and suitable for routine analysis and quality control of lisinopril tablets.

Keywords: *Lisinopril, UV-Vis Spectrophotometry, Method Validation, Dissolution Test, Tablets*