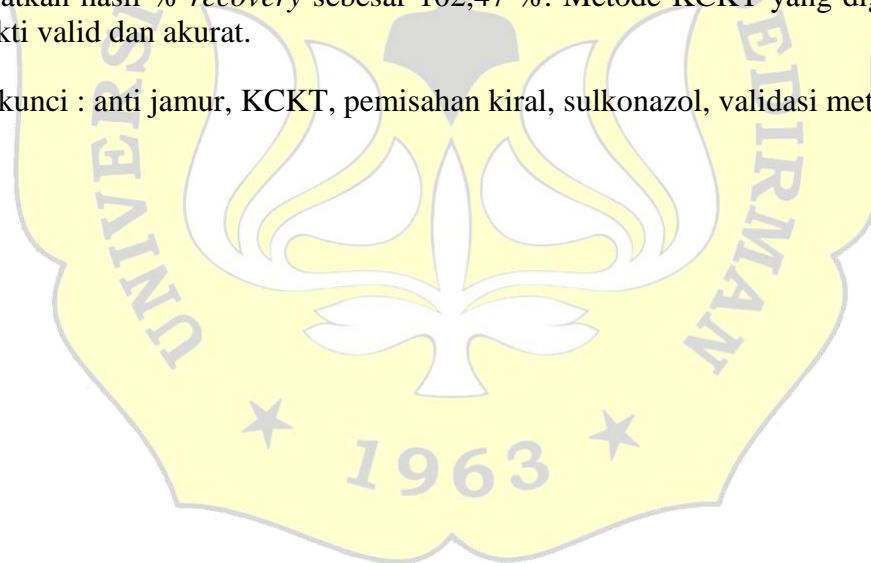


## ABSTRAK

Sulkonazol merupakan obat anti jamur jenis imidazol yang banyak digunakan untuk pengobatan infeksi jamur pada kulit/topikal. Penelitian ini bertujuan memvalidasi metode KCKT untuk analisis senyawa sulkonazol dalam sampel obat farmasi berupa krim salep dengan tahapan yang dilakukan yaitu optimasi dan validasi metode. Fase diam yang digunakan berupa kolom kiral Siklodekstrin *Chiralpak Astec Cyclobond*<sup>®</sup> I 2000 HP-RSP (25cm x 4,6mm, 5 $\mu$ m). Fase gerak asetonitril : air (0,2% HCOOH) (13:87, v/v), laju alir sebesar 1,0 mL/menit, volume injeksi sebesar 2  $\mu$ L, panjang gelombang 230 nm. Nilai Rs yang diperoleh sebesar 1,43. Kurva kalibrasi linear berkisaran antara 100 - 250 ppm pada puncak 1 diperoleh nilai koefisien determinasi ( $R^2$ ) sebesar 0,9977, nilai korelasi (r) sebesar 0,9989, LOD sebesar 11,37 ppm, LOQ sebesar 37,90 ppm, standar deviasi (SD) sebesar 0,7858, KV sebesar 0,7621 %, dan HORRAT sebesar 0,071. Hasil pada puncak 2 yaitu diperoleh nilai korelasi (r) 0,9988, nilai koefisien determinasi ( $R^2$ ) sebesar 0,9976, LOD sebesar 11,62 ppm, LOQ sebesar 38,75 ppm, SD sebesar 0,8744, KV sebesar 0,8971 %, dan HORRAT sebesar 0,084. Persen *recovery* yang didapatkan sebesar 101,1%, dan nilai selektivitas ( $\alpha$ ) sebesar 1,21. Kadar sulkonazol yang diperoleh dalam sediaan krim salep sebesar 102,47 ppm dengan waktu retensi puncak 1 dan 2 masing-masing yaitu 20,94 menit, dan 23,99 menit, didapatkan hasil % *recovery* sebesar 102,47 %. Metode KCKT yang digunakan terbukti valid dan akurat.

Kata kunci : anti jamur, KCKT, pemisahan kiral, sulkonazol, validasi metode



## ABSTRACT

Sulconazole is an imidazole type of anti fungal many used for the treatment of topical's antifungal infection. This purpose of research to validate the HPLC method for analysis of sulconazole compound in pharmaceutical sample in ointment cream with the steps of optimization and method validation. Stationary phase using chiral column type Cyclodextrin Chiralpak Astec Cyclobond® I 2000 HP-RSP (25 cm x 4.6 mm, 5  $\mu$ m). Mobile phase of acetonitrile : water (0.2% HCOOH) (13:87, v/v), flow rate 1.0 mL/minute, injection volume 2  $\mu$ L, wavelength at 230 nm. The  $R_s$  value has obtained of 1.43. The calibration curve was linear in the range between 100 to 250 ppm in peak 1 with correlation value ( $r$ ) of 0.9989, the coefficient of determination value ( $R^2$ ) 0.9977, LOD was 11.37 ppm, LOQ was 37.90 ppm, standard deviation (SD) was 0.7858, KV was 0.7621%, HORRAT 0.071. The result in peak 2 is that the correlation value ( $r$ ) was 0.9988, the coefficient of determination ( $R^2$ ) 0.9976, LOD was 11.62 ppm, LOQ was 38.75 ppm, SD was 0.8744, KV was 0.8971%, and HORRAT 0.084. Percent *recovery* was 101.1%, and value of selectivity ( $\alpha$ ) was 1.21. The sample sulconazole was obtained at 102.47 ppm with peak retention of times 1 and 2 respectively 20.94 and 23.99 minutes, the % *recovery* of 102.47%. The HPLC method used was proven to be valid and accurate.

Keywords : antifungal, chiral separation, HPLC, sulconazole, method validation

