# Chiral Separation of Econazole by High Performance Liquid Chromatography Method using Cyclodextrin as Chiral Column

| | |
|---|---|
| **Title** | Chiral Separation of Econazole by High Performance Liquid Chromatography Method using Cyclodextrin as Chiral Column |
| **Author Order** | 5 of 9 |
| **Accreditation** | 1 |
| **Abstract** | The chiral separation of econazole, an antifungal drug with one chiral center has been successfully carried out using the high-performance liquid chromatography (HPLC) method. Enantioresolution of econazole (Rs = 2.29) was achieved using cyclodextrin-based chiral column (Astec Cyclobond, 25 cm ÃƒÂ— 4.6 mm ÃƒÂ— 5 ÃŽÂ¼m), mobile phase composition of acetonitrile : water (0.2% HCOOH) (20:80, v/v), and UV detection of 220 nm.The optimized HPLC method has been applied for the quantitative determination of econazole in the pharmaceutical (liquid) sample withpercentage recovery of 100.75 % (RSD = 0,95%; n = 3). The effect of several HPLC parameters on the chiral separation of econazole was also evaluated and the method was successfully validated in terms of linearity, accuracy, precision, and selectivity. The present HPLC method was simple, short analysis time, and high resolution. |
| **Publisher Name** | Universitas Jenderal Soedirman |
| **Publish Date** | 2022-07-21 |
| **Publish Year** | 2022 |
| **Doi** | DOI: 10.20884/1.jm.2022.17.2.6348 |
| **Citation** | |
| **Source** | Molekul |
| **Source Issue** | Vol 17 No 2 (2022) |
| **Source Page** | 252-260 |
| **Url** | http://jos.unsoed.ac.id/index.php/jm/article/view/6348/3191 |
| **Author** | AMIN FATONI, S.Si, M.Si, Ph.D |