

## Analysis of Fluconazole in Human Urine Sample by High Performance Liquid Chromatography Method

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<b>Abstract</b>	A method for determination of fluconazole, antifungal drug in human urine by using reversed-phased high performance liquid chromatography (RP-HPLC) with ultraviolet (UV) detector was developed. Optimization HPLC conditions were carried out by changing the flow rate and composition of mobile phase. The optimum separation conditions at a flow rate 0.85 mL/min with a composition of mobile phase containing methanol: water (70: 30, v/v) with UV detection at a wavelength 254 nm was able to analyze fluconazole within 3 min. The excellent linearity was obtained in the range of concentration 1 to 10 $\mu\text{g/mL}$ with $r(2) = 0.998$ . The limit of detection (LOD) and limit of quantitation (LOQ) were 0.39 $\mu\text{g/mL}$ and 1.28 $\mu\text{g/mL}$ , respectively. Solid phase extraction (SPE) method using octadecylsilane (C18) as a sorbent was used to clean-up and pre-concentrated of the urine sample prior to HPLC analysis. The average recoveries of fluconazole in spiked urine sample was 72.4% with RSD of 3.21% (n=3).
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