

Chromaster

- Analysis of anti-mycotic agents -

In recent years, side-effects associated with bone marrow or organ transplantation or declining immunity levels in patients due to cancer chemotherapy or HIV infection have led to an increase in profound (systemic or internal organ) infections. In response to these problems, a large number of anti-bacterial agents offering a broad spectrum of anti-bacterial efficacy are now under development.

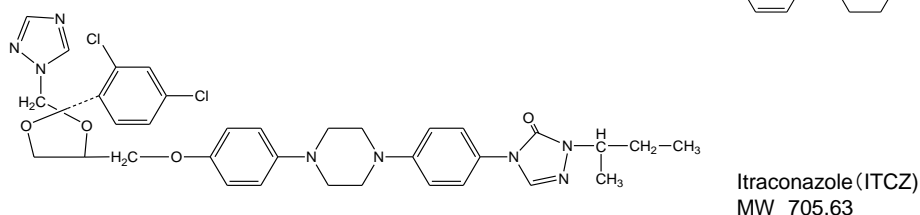
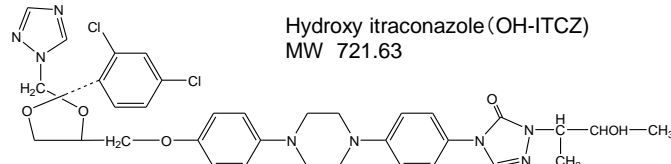
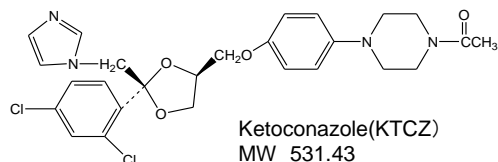
Among these, azole-based anti-mycotic agents, owing to their high selectivity, are widely used in the form of oral administration or injection. However, because such agents are metabolized by cytochrome P450 in the liver and present many drug interactions, to prevent side-effects when administered concurrently with other drugs, there is a need to monitor their in-blood concentration.

The text below describes examples of analyzing azole-based anti-mycotic agents (ketoconazole, hydroxyl itraconazole, and itraconazole).

Analysis of anti-mycotic agents

Sample : azole-based anti-mycotic agents (ketoconazole, hydroxyl itraconazole, and itraconazole).

[Standard samples]



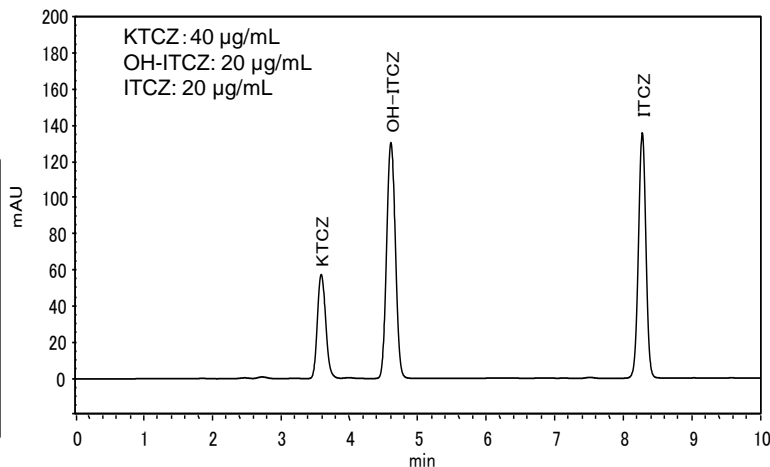
[System configuration]

Chromaster 5110 Pump
Chromaster 5210 AutoSampler
Chromaster 5310 Column Oven
Chromaster 5410 UV Detector
Empower 2 Data Processing System

[LC conditions]

Column	: HITACHI LaChrom C18 (3 μ m) 4.6 mm I.D. \times 100 mm
Eluent	: (A) 10 mM $\text{KH}_2\text{PO}_4 \cdot \text{K}_2\text{HPO}_4$ (pH 7.0) / $\text{CH}_3\text{CN} = 50/50$ (B) CH_3CN *Gradient: 0min(B)10% \rightarrow 10min(B)50%
Flow rate	: 1.0 mL/min
Temperature	: 40°C
Detection	: 260 nm
Inj.vol.	: 20 μ L

[Results of standard sample measurement]



NOTE: These data are an example of measurement; the individual values cannot be guaranteed.