

Application Note

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Analysis of indometacin using direct injectionin of rat plasma

When analyzing for drugs in biological samples such as blood plasma, preparation by deprotenization is usually required.

In the present report, indomethachin in rat plasma was analyzed by online deprotenization using a deprotenization column with column switching. Fig. 1 shows the chromatogram of rat plasma spiked with indomethachin standard (1.0 mg / ml).

Keywords: 1.Indometacin, 2.rat plasma, 3.CrestPakC18T-5, 4.UV, 5.column switching

Conditions:

Pretreatment Column: CAPCELL PAK MF Ph-1,

(4.6mm I.D. x 50mmL)

Pretreatment Eluent: 100mM Na₂HPO₄ (pH6.9) /

CH₃CN (87/13)

Flow rate: 1.0mL/min Switching time: 5.7~7.3min Separation Column: CrestPak C18T-5

(4.6mm I.D. x 250mmL)

Eluent: 100mM Na2HPO4 +20mM SDS

(pH2.3)/CH₃CN (50/50)

Wavelength: 254nm

Range: 0.001AU/10mV Column temperature: 40 degree celsius

Injection volume: 20uL

Sample: Indometacin STD + rat plasma

(1.0 ug/mL)

Pretreatment $\begin{array}{c} \text{rat plasma} \\ \downarrow \\ \text{Centrifugation(3000rpm. 10min)} \\ \downarrow \\ \text{Filter with } 0.2\,\mu \text{ m membrane filter} \\ \downarrow \\ \text{Add Indometacin STD(1.0}\,\mu \text{ g/mL)} \\ \downarrow \\ \text{INJECT} \end{array}$

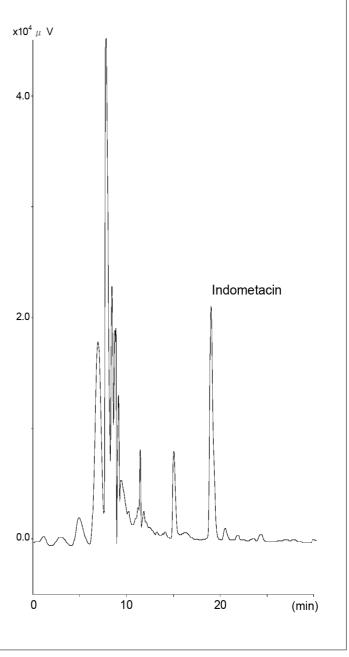


Fig. 1 chromatogram of indomethachin (standard added at 1.0 mg/ml) in rat plasma.