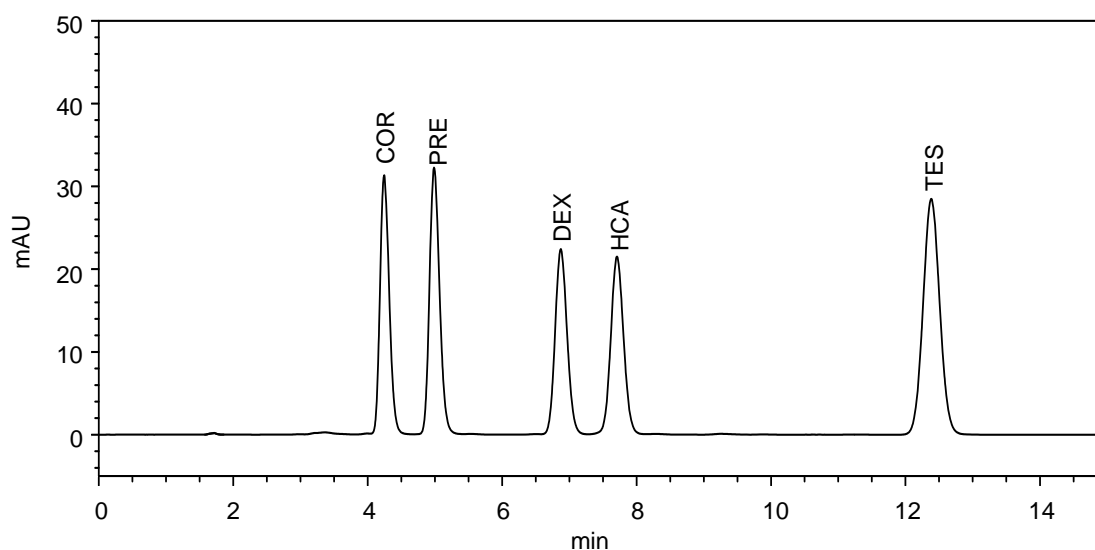


Analysis of Steroids

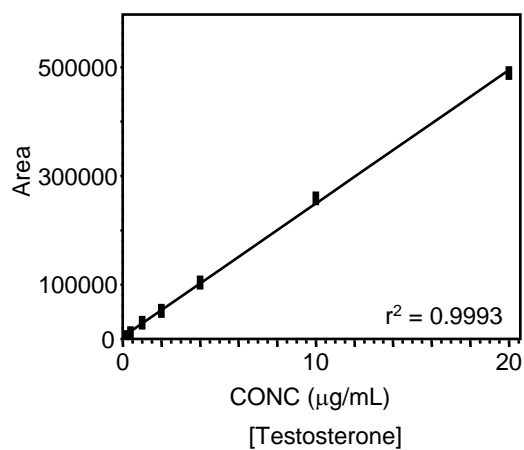
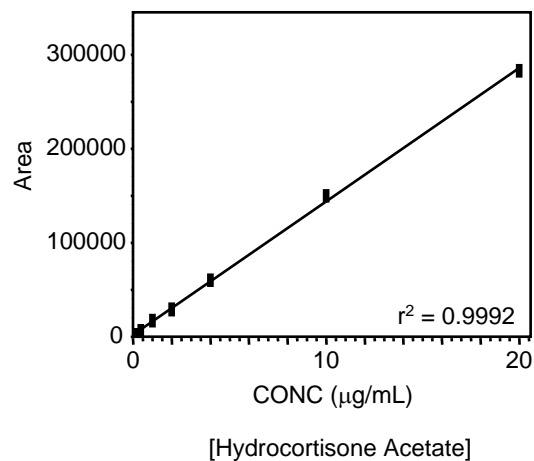
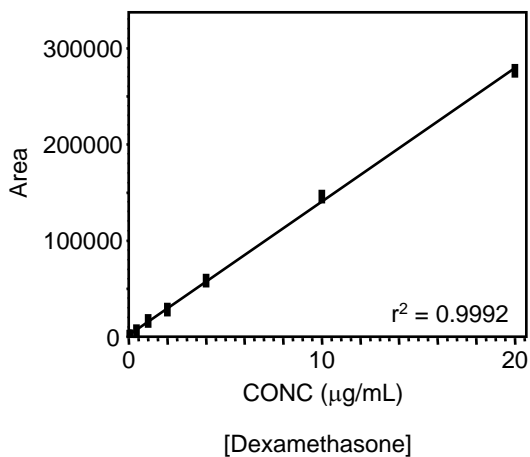
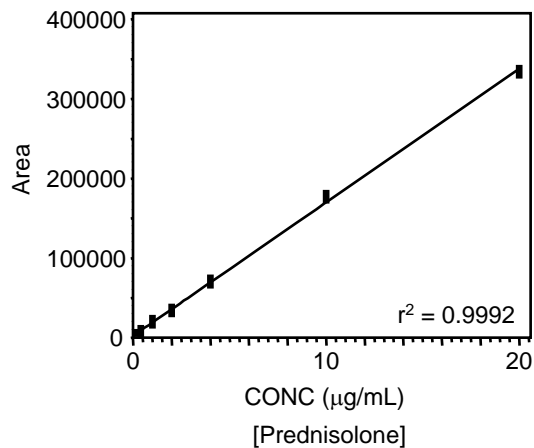
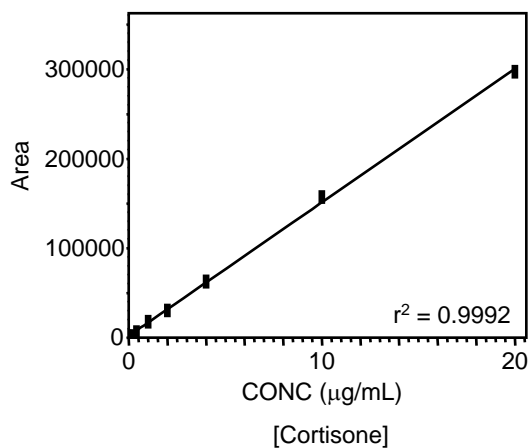
Steroid drugs have strong anti-inflammatory and immunosuppressive actions and the external preparations containing steroids are used to treat various skin diseases. As an example of the analysis for steroid external preparations, two commercially available ointments were analyzed. Hydrocortisone acetate and prednisolone were detected in the commercially available ointments.



COR : Cortisone
 PRE : Prednisolone
 DEX : Dexamethasone
 HCA : Hydrocortisone Acetate
 TES : Testosterone

SAMPLE	10 μ L of Std. Soln. (20 μ g/mL each)	PRESSURE	
PACKING MATERIAL	HITACHI LaChrom C18 (5 μ m)	TEMPERATURE	40°C
COLUMN SIZE	4.6 mm I.D. \times 150 mm (P/N : 891-5050)	SEPARATION METHOD	Partition/Adsorption
ELUENT	Methanol / Water = 60 / 40 (v/v)	DETECTOR	UV 254 nm
		INSTRUMENTS Chromaster 5110 (Pump), Chromaster 5210 (Autosampler), Chromaster 5310 (Column Oven), Chromaster 5420 (UV-VIS Detector)	
FLOW RATE	1.0 mL/min		
NOTE	Standard stock solution : Prepared with methanol to have the concentration of 100 μ g/mL. Standard solution : Prepared with methanol to have the concentrations of 0.1, 0.4, 1, 2, 4, 10, and 20 μ g/mL.		
KEY WORDS Bio/Medical Science/Food/Pharmaceutical, Medicine-Pharmaceutical, Medical Science-Pharmaceutical Science, Steroid, Anti-inflammatory Agent, Steroid Hormone, adrenocortical hormone, Ointment, UV-VIS Spectrometry, Health, LaChrom C18, Chromaster, Partition/Adsorption		High Performance Liquid Chromatograph (HPLC)	
		Sheet No. LC100014-01	

Calibration Curves of Steroids

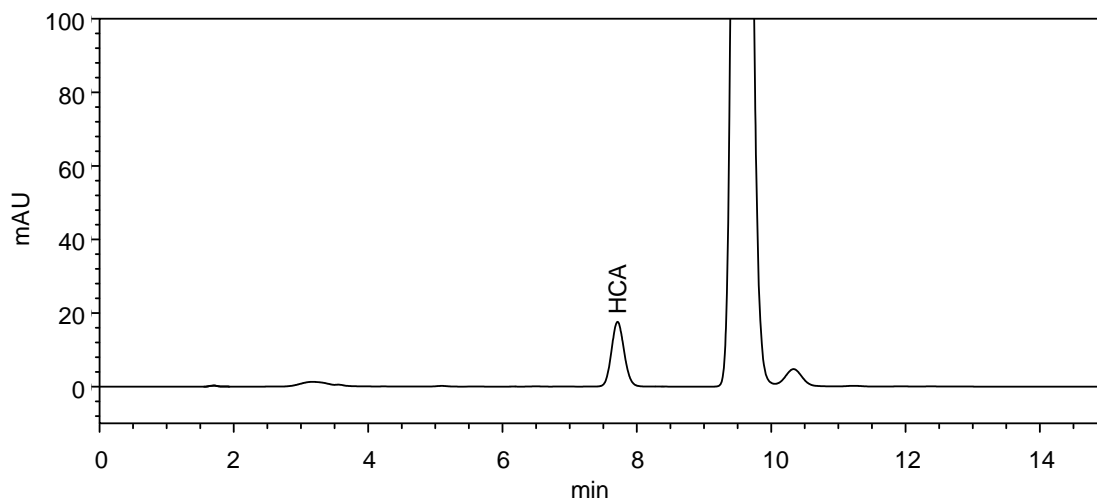


[The range of the calibration curve is 0.1 - 20 µg/mL.]

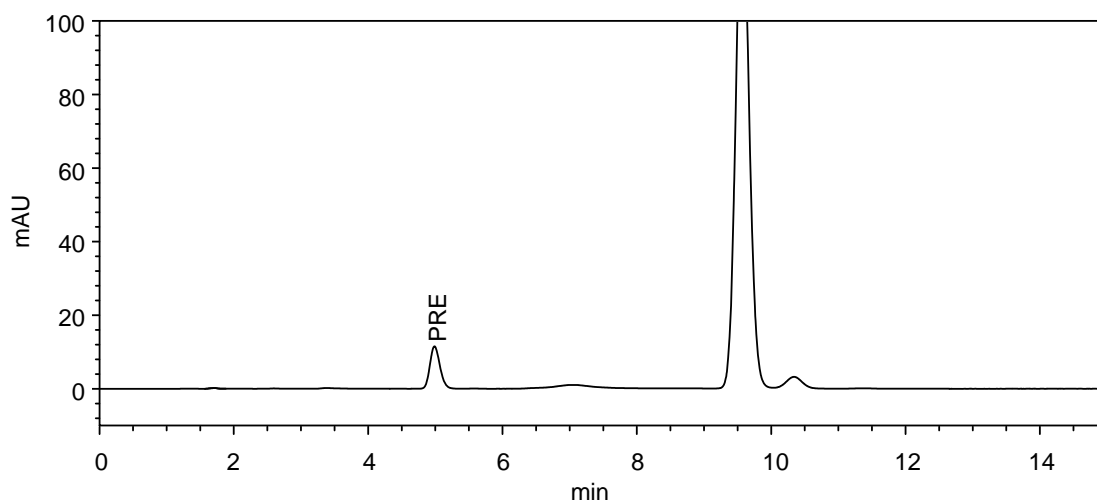
High Performance Liquid
Chromatograph (HPLC)

Sheet No. LC100014-02

Chromatograms of Steroids in Ointments



[Chromatogram of Ointment (A)]



[Chromatogram of Ointment (B)]

[Sample Preparation Method]

Sample A: 0.5 g, B: 0.2 g

← 80 mL of methanol

Sonicate 55°C, 20 min

← Make up to 100 mL with methanol

Centrifuge 3,000 rpm, 10 min

Filter Pore Size 0.45 μm

↓
Sample for injection

High Performance Liquid
Chromatograph (HPLC)

Sheet No. LC100014-03