

HPLC Analysis of OTC Antipyretic Analgesics

HPLC analysis of pharmaceutical products is commonly used in a wide range of fields including research, development, and quality control in the pharmaceutical industry and in product testing by inspection agencies. Due to the high resolution and versatility of this technique, reversed phase chromatography using an ODS column is most often performed in HPLC.

Introduced here are comparative analyses of OTC antipyretic analgesics by reversed phase HPLC using the TSKgel ODS-100V, 5µm column.

**These data were generously provided by Professor Hisao Oka and Dr. Koichi Inoue from the School of Pharmacy at Kinjo Gakuin University.*

Figure 1: Separation of antipyretic analgesics on TSKgel ODS-100V, 5µm column (standard sample)

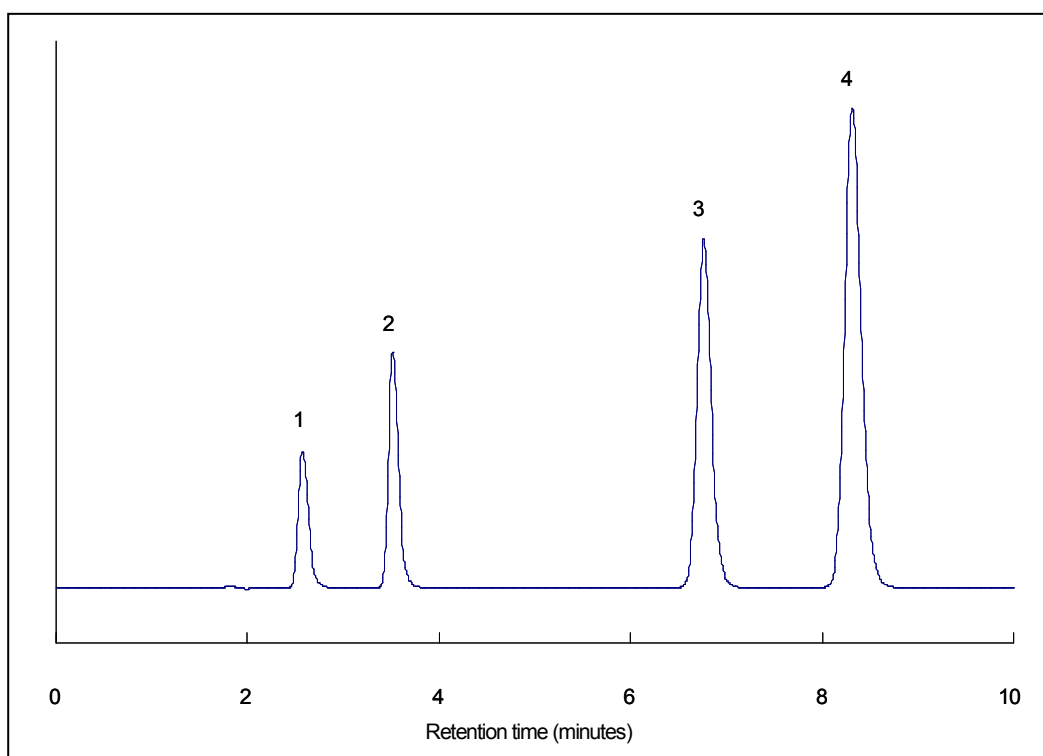


Table 1. Conditions

Column:	TSKgel ODS-100V, 5µm, 4.6mm ID × 15cm
Mobile phase:	Methanol containing 0.1% formic acid/water = 40/60(V/V)
Flow rate:	1.0mL/min
Detection:	UV@254nm
Temperature:	40°C
Injection vol.:	10µL
Standard Samples:	1. acetaminophen (10g/L) 2. caffeine (50g/L) 3. aspirin (500g/L) 4. ethenzamide (500g/L) (Sample solution methanol/water=50/50)
Powdered sample (0.1g) is dissolved in 200mL ethanol, then diluted 10 fold with water/methanol solution (50/50,V/V) and injected into the HPLC without further modification.	

Figure 2: Separation of OTC antipyretic analgesic on TSKgel ODS-100V, 5 μ m column (Bufferin)

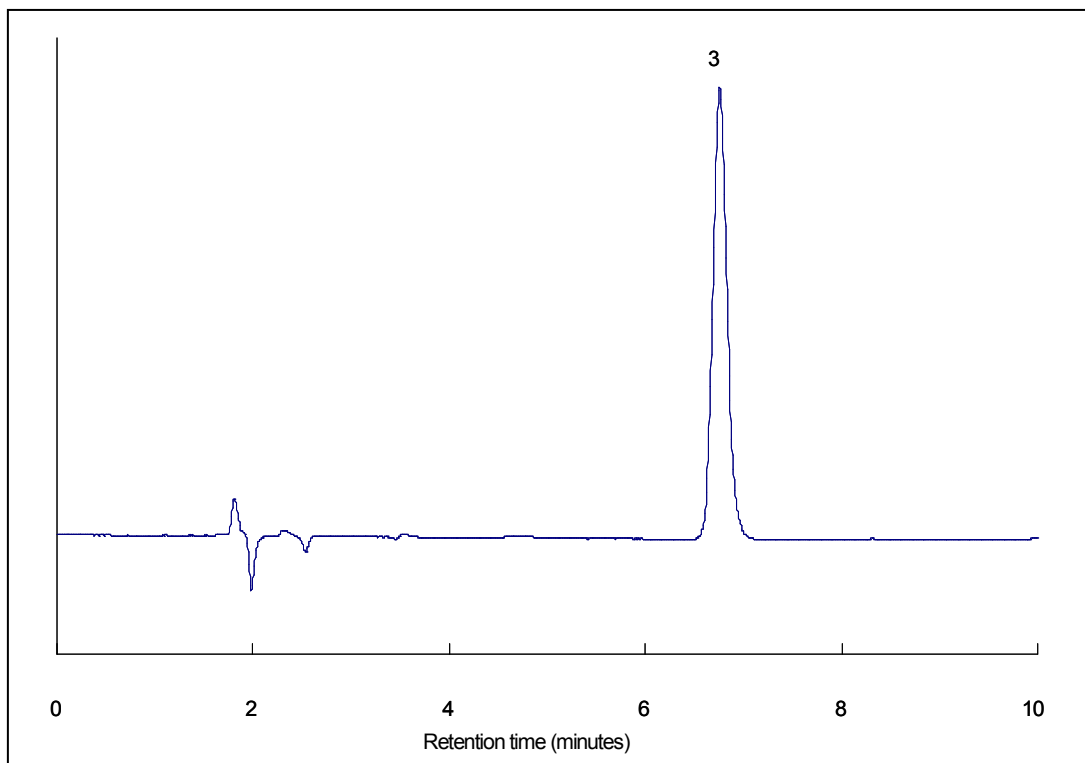


Figure 3: Separation of OTC antipyretic analgesic on TSKgel ODS-100V, 5 μ m (Bufferin Plus)

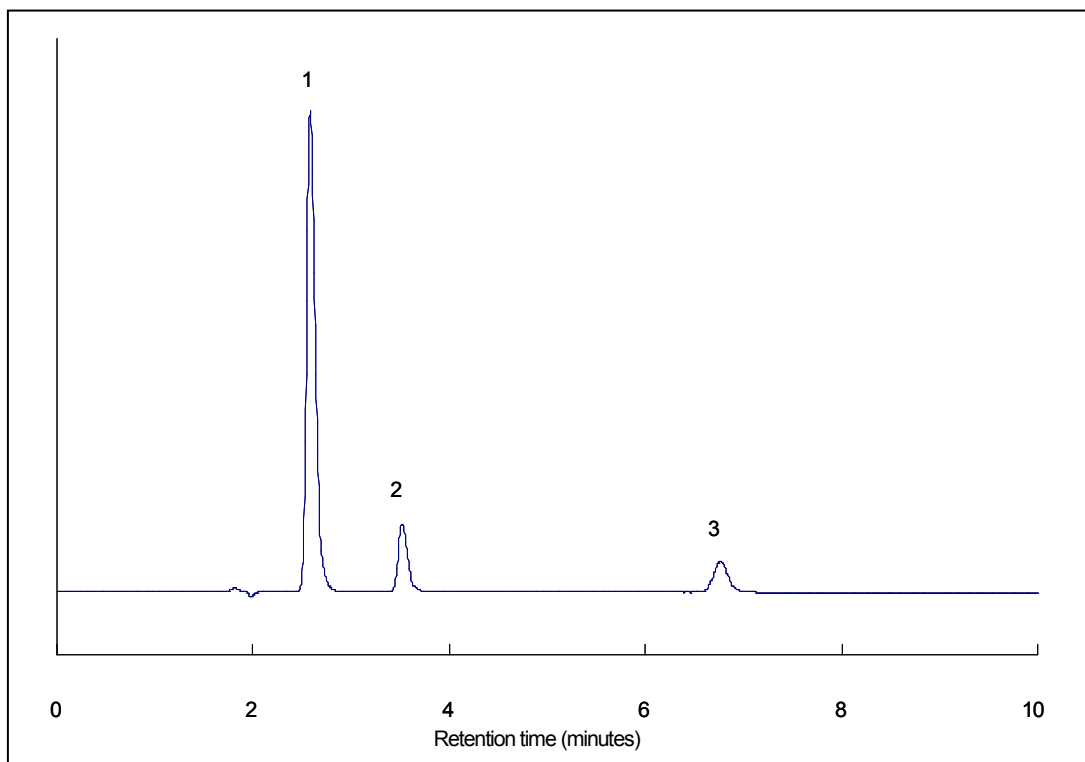


Figure 4: Separation of OTC antipyretic analgesic on TSKgel ODS-100V, 5 μ m column (Children's Bufferin)

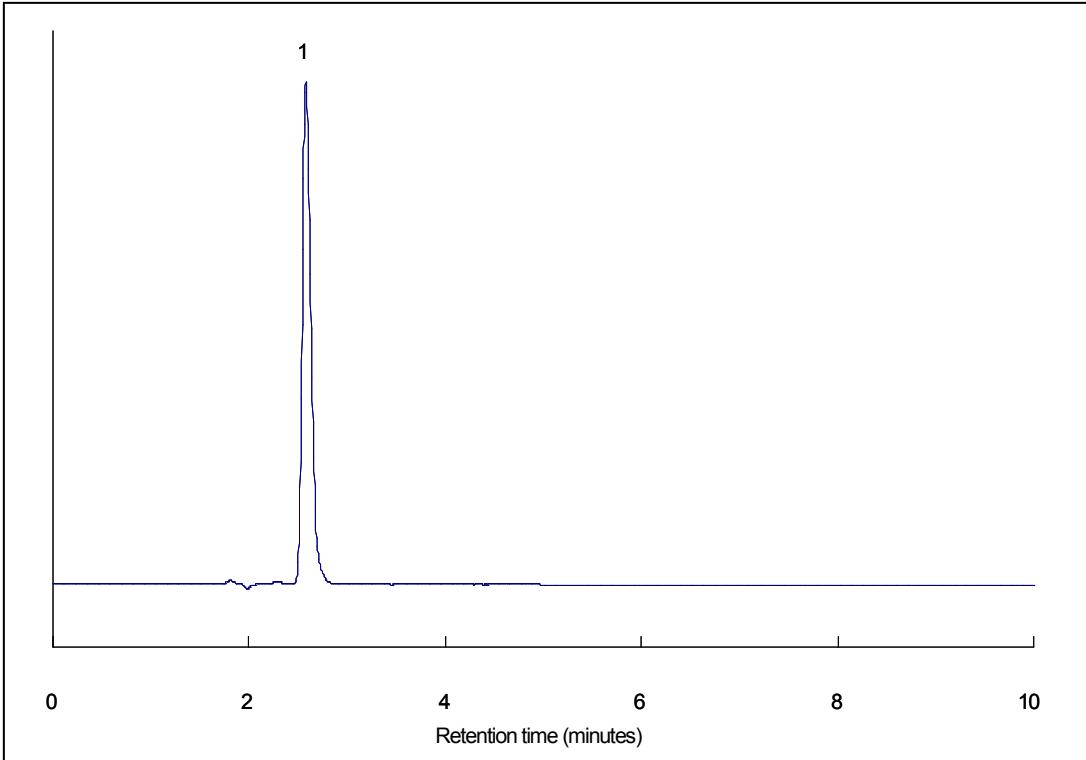


Figure 5: Separation of OTC antipyretic analgesic on TSKgel ODS-100V, 5 μ m column (Norshin)

