

# APPLICATION

## 10 Cannabinoids by LC-MS/MS using Kinetex 2.6 μm Biphenyl LC Column

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### Overview

Developed is a very rapid LC-MS/MS method analyzing 10 major cannabinoids using a Kinetex Biphenyl core-shell column. The Kinetex core-shell particle and column technology provides laboratories with the versatility and option to move from HPLC to UHPLC instrumentation platforms for greater productivity and results. Additionally, the developed method can also include Terpenes, Aflatoxins, and pesticides with minor modifications on Mass Spec parameters.

### Sample Preparation

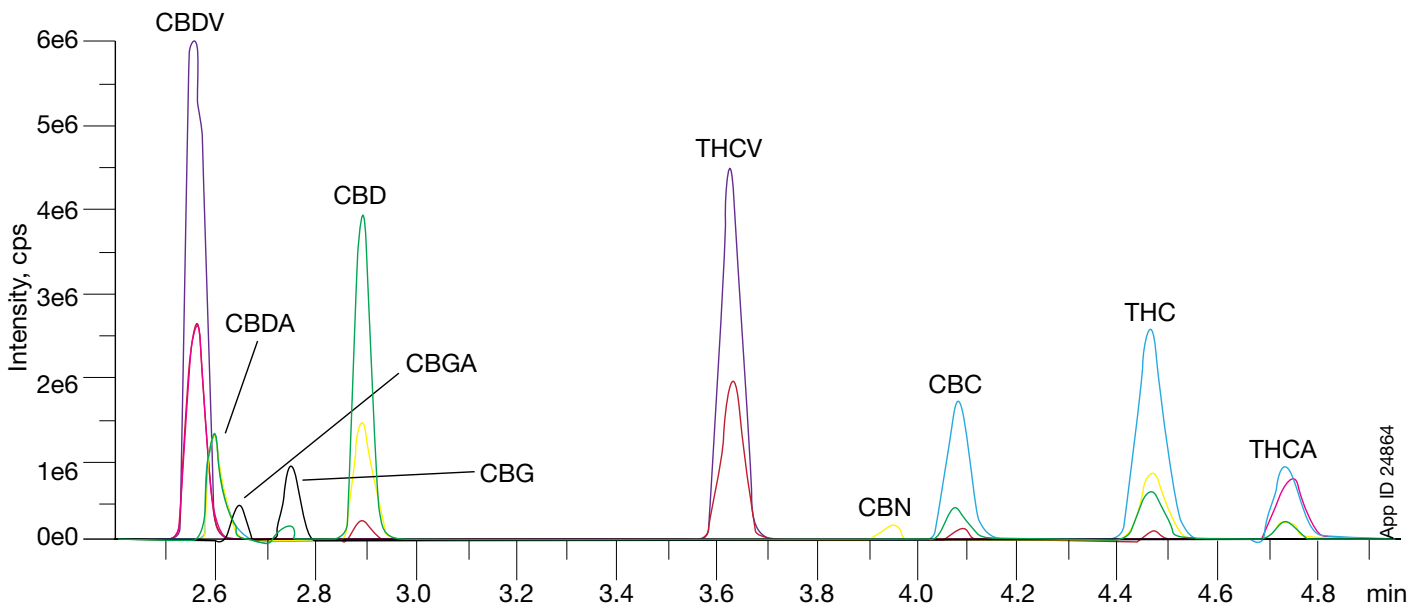
- 0.2 gram of flower (blended) or 0.1 gram of concentrate in 30 mL of Acetonitrile
- Sonicate for 15 minutes
- Centrifuge at least 4000 rpm
- Dilute 1:100 in Methanol
- Dilute 1:200 in Methanol
- Inject 2 μL

### LC-MS/MS Conditions

**Column:** Kinetex 2.6 μm Biphenyl  
**Dimension:** 150 x 4.6 mm  
**Part No.:** 00F-4622-E0  
**Mobile Phase:** A: Water + 5 mM Ammonium acetate + 0.1% Formic acid  
 B: Methanol/Water (98:2) + 5 mM Ammonium acetate  
**Gradient:**

Time (min)	% B
3.5	100
4	100
4.1	90
5	90

**Flow Rate:** 1 mL/min  
**Injection:** 2 μL  
**Temperature:** Ambient  
**Detector:** SCIEX QTRAP<sup>®</sup> 6500+  
**Detection:** ESI Positive - MS/MS  
**Sample:** 1. CBDV  
 2. CBDA  
 3. CBGA  
 4. CBG  
 5. CBD  
 6. THCV  
 7. CBN  
 8. CBC  
 9. THC  
 10. THCA



# APPLICATION

## Ordering Information Kinetex<sup>®</sup> Biphenyl Core-Shell LC Columns

2.6 µm Minibore Columns (mm)					SecurityGuard <sup>™</sup> ULTRA Cartridges <sup>†</sup>
Phases	30 x 2.1	50 x 2.1	100 x 2.1	150 x 2.1	3/pk
Biphenyl	00A-4622-AN	00B-4622-AN	00D-4622-AN	00F-4622-AN	AJO-9209

for 2.1 mm ID

2.6 µm MidBore <sup>™</sup> Columns (mm)				SecurityGuard ULTRA Cartridges <sup>†</sup>
Phases	50 x 3.0	100 x 3.0	150 x 3.0	3/pk
Biphenyl	00B-4622-YO	00D-4622-YO	00F-4622-YO	AJO-9208

for 3.0 mm ID

2.6 µm Analytical Columns (mm)				SecurityGuard ULTRA Cartridges <sup>†</sup>
Phases	50 x 4.6	100 x 4.6	150 x 4.6	3/pk
Biphenyl	00B-4622-E0	00D-4622-E0	00F-4622-E0	AJO-9207

for 4.6 mm ID

<sup>†</sup> SecurityGuard ULTRA Cartridges require holder, Part No.: AJO-9000

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