

# APPLICATION

## Aflatoxins from Cannabis by LC-MS/MS using Kinetex<sup>®</sup> 2.6 μm LC Column

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### Overview

Mycotoxins are very harmful toxins found in wheat and grain products. They are also present in various Cannabis samples. Multiple states have proposed regulation on levels allowed in cannabis products. In this application four target aflatoxins were monitored. Excellent linearity and precision were demonstrated for all targets. Sensitive and precise quantitation of targeted aflatoxins is achieved to ppt levels.

### Sample Preparation

**Weight:** Flower: 0.2 gram Concentrates: 0.02 gram  
**Prep:** Break apart flower bud  
**Add:** Add 5 mL acetonitrile  
**Extract:** Sonicate, vortex, freeze, and centrifuge  
**Dilution:** 1:5 v/v ACN  
**Analyze:** Inject 25 μL to LC-MS/MS

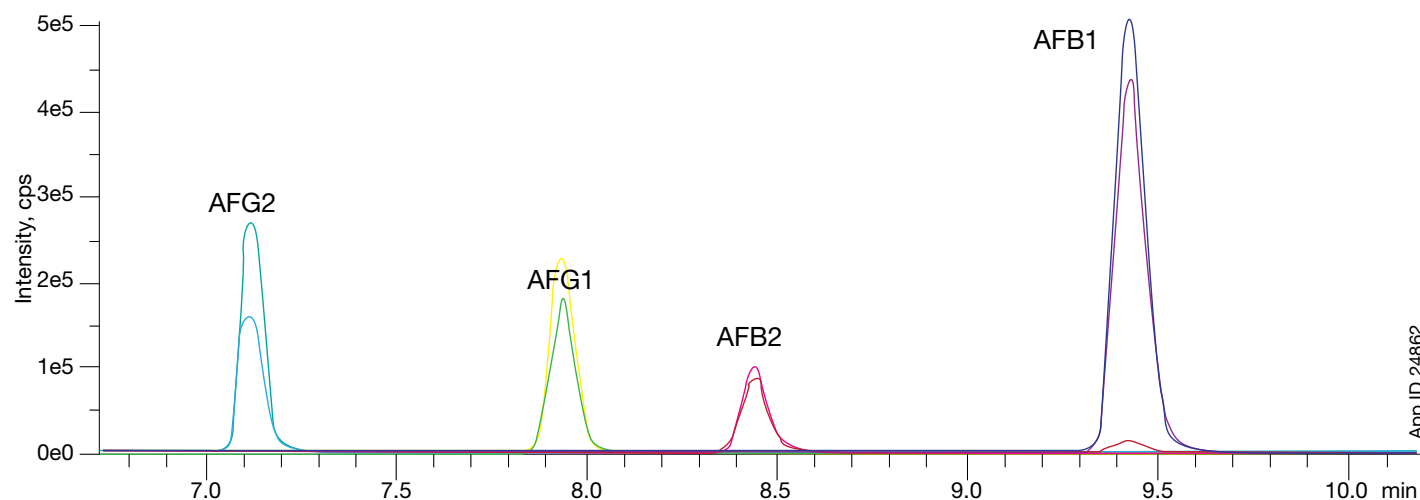
### LC-MS/MS Conditions

**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
0.75	5
4	50
5	60
5.01	78
8	88
10	92
12	100
13.8	100
13.9	5
16	0

**Flow Rate:** 1 mL/min  
**Injection:** 25 μL  
**Temperature:** Ambient  
**Detection:** SCIEX QTRAP<sup>®</sup> 6500+  
**Detection:** ESI Positive - MS/MS  
**Sample:** 1. Aflatoxin G2  
2. Aflatoxin G1  
3. Aflatoxin B2  
4. Aflatoxin B1

Separation of four aflatoxins



App ID 24862

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## Kinetex<sup>®</sup> Ordering Information

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	AJ0-9209 for 2.1 mm ID

2.6 µm MidBore <sup>™</sup> Columns (mm)				SecurityGuard <sup>™</sup> ULTRA Cartridges <sup>†</sup>	
Phases	50 x 3.0	100 x 3.0	150 x 3.0	3/pk	
Biphenyl	00B-4622-Y0	00D-4622-Y0	00F-4622-Y0	AJ0-9208 for 3.0 mm ID	

2.6 µm Analytical Columns (mm)				SecurityGuard <sup>™</sup> 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	AJ0-9207 for 4.6 mm ID	

† SecurityGuard ULTRA Cartridges require holder, Part No.: AJ0-9000

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