

TN-1122

APPLICATIONS

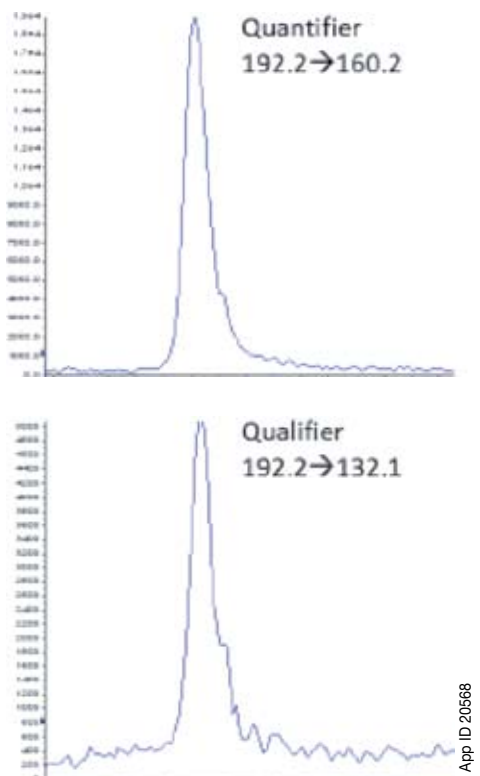
Carbendazim Analysis from Fruit Juice Using a Synergi Fusion-RP HPLC Column

After a quick cleanup step, carbendazim is analyzed from fruit juice by LC/MS/MS.

Sample Preparation

1. Transfer 1 mL of fruit juice into a 1.5 mL tube and then centrifuge for 5 minutes at 12,000 rpm.
2. Transfer 200 µL of supernatant into an HPLC autosampler vial and then add 800 µL of water.
3. Mix well using a vortex mixer. The diluted sample is ready for LC/MS/MS analysis.

HPLC Methodology



MS/MS Detection	
Optimized for QTRAP [®] 5500 LC/MS/MS system	
Turbo V [™] ion source with ESI probe	
Positive polarity	

Source/Gas Parameters	
CUR:	30 psi
IS:	5500 V
TEM:	400 °C
GS1:	60 psi
GS2:	60 psi
Ihe:	On
CAD:	High

Compound MRM Parameters and Retention Times	
Dwell Time:	100 ms
Q1 Resolution:	UNIT
Q3 Resolution:	UNIT
DP:	76 V
EP:	10 V
CXP:	4 V

The retention times were collected using the Shimadzu[®] Prominence[®] and Agilent[®] 1200 LC system

Analyte	Q1 (m/z)	Q3 (m/z)	Shimadzu Prominence RT (min)	Agilent 1200 RT (min)	CE (V)
Carbendazim (quantifier)	192.2	160.2	6.1	7.0	27
Carbendazim (qualifier)	192.2	132.1	6.1	7.0	41

LC/MS/MS Conditions

Column: Synergi[™] 2.5 µm Fusion-RP
Dimensions: 50 x 2.0 mm
Part No.: 00B-4423-B0
Mobile Phase: A: Methanol/Water + 5 mM Ammonium formate (10:90)
 B: Methanol/Water + 5 mM Ammonium formate (90:10)
Gradient:

Time (min)	% B
0	0
1	0
15	100
18	100
18.05	0
20	0

Flow Rate: 400 µL/min
Temperature: 40 °C
Sample: 1. Carbendazim



Make this analysis even easier! Install the iMethod[™] onto your Cliiquid[®] software to skip the method development, gain access to an MRM library, and quickly and easily prepare reports. Visit www.phenomenex.com for more information.

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Ordering Information

Complete iMethod™ Kit*

Description	Part No.
iMethod Test for Carbendazim	KHO-9038

*Kit contains downloadable iMethod, Synergi™ Fusion-RP HPLC column with SecurityGuard™ ULTRA cartridges and holder, in-line filter, Phenex™ Syringe Filters, Verex™ Vial kit and Sure-Lok™ Fingertight Nut.

Synergi Fusion-RP HPLC Columns

2.5 µm High Speed Technology (HST) Columns (mm)

Phase	30 x 2.0	50 x 2.0	100 x 2.0	50 x 3.0	100 x 3.0	50 x 4.6
Fusion-RP	00A-4423-BO	00B-4423-BO	00D-4423-BO	00B-4423-YO	00D-4423-YO	00B-4423-EO

4 µm Capillary Columns (mm)

Phase	50 x 0.30	150 x 0.30	50 x 0.50	150 x 0.50	250 x 0.50	Guard Column (mm)
Fusion-RP	00B-4424-AC	00F-4424-AC	00B-4424-AF	00F-4424-AF	00G-4424-AF	03M-4424-AC

4 µm Microbore and Minibore Columns (mm)

Phase	50 x 1.0	150 x 1.0	30 x 2.0	50 x 2.0	75 x 2.0	150 x 2.0	250 x 2.0	SecurityGuard Cartridges (mm)
Fusion-RP	00B-4424-AO	00F-4424-AO	00A-4424-BO	00B-4424-BO	00C-4424-BO	00F-4424-BO	00G-4424-BO	4 x 2.0* AJ0-7556 for ID: 2.0-3.0 mm

4 µm Narrow Bore Columns (mm)

Phase	30 x 3.0	50 x 3.0	150 x 3.0	250 x 3.0	SecurityGuard Cartridges (mm)
Fusion-RP	00A-4424-YO	00B-4424-YO	00F-4424-YO	00G-4424-YO	4 x 2.0* AJ0-7556 for ID: 2.0-3.0 mm

4 µm Analytical Columns (mm)

Phase	30 x 4.6	50 x 4.6	75 x 4.6	150 x 4.6	250 x 4.6	SecurityGuard Cartridges (mm)
Fusion-RP	00A-4424-EO	00B-4424-EO	00C-4424-EO	00F-4424-EO	00G-4424-EO	4 x 3.0* AJ0-7557 for ID: 3.2-8.0 mm

* SecurityGuard Analytical cartridges require holder, Part No.: KJO-4282



If Phenomenex products in this technical note do not provide at least an equivalent separation as compared to other products of the same phase and comparable dimensions, return the product with comparative data within 45 days for a FULL REFUND.


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