

APPLICATION

Determination of Boar Taint Compounds by LC/MS/MS, a Fully Porous LC Column Solution

Matthew Trass, Allen Misa, and Michael Klein
Phenomenex, Inc., 411 Madrid Ave., Torrance, CA 90501 USA

Overview

Boar taint is an odor or taste that is present in non-castrated male pigs used for consumption. A standardized reference method for three boar taint marker compounds (skatole, androstenone, and indole) is created for rapid testing for consumer acceptance. This application note demonstrates the acceptable resolution and ideal selectivity of Synergi™ Polar-RP fully porous LC column. For optimal sensitivity, the method was performed by liquid chromatography tandem mass spectrometry (LC/MS/MS).

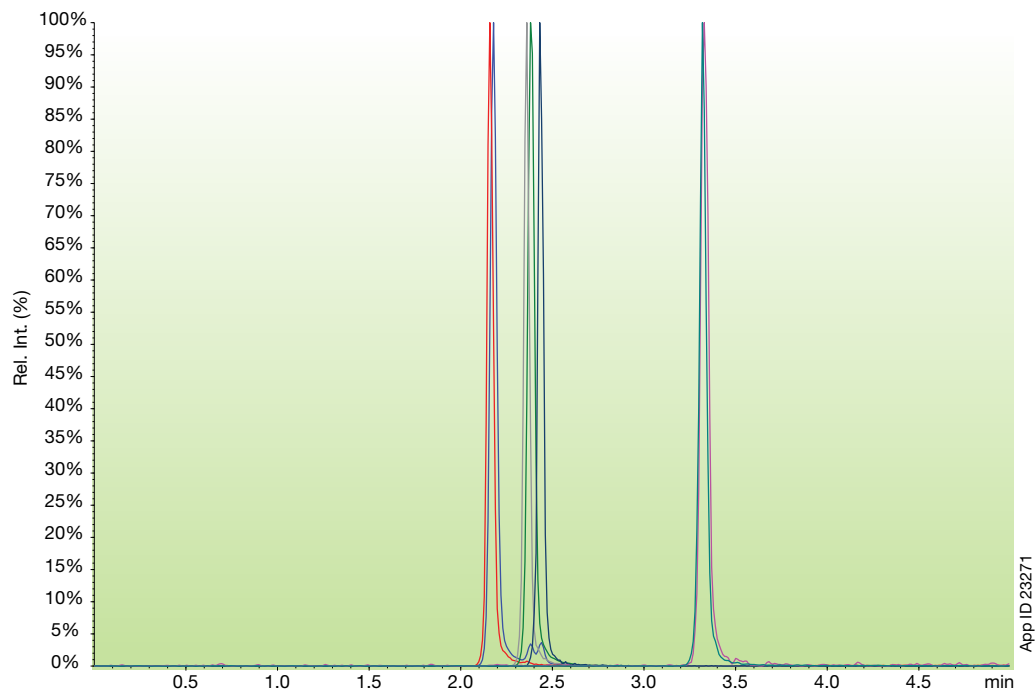
Standards were prepared in initial mobile phase (i.e. 30 % acetonitrile in water). All analytes are 1 ppm except for androstenone and D4-androstenone which are 10 ppm. And the injection volume was 10 µL.

Column: Synergi 4 µm Polar-RP
Dimensions: 75 x 2.0 mm
Part No.: 00C-4336-B0
Mobile Phase: A: 0.1% Formic acid in water
 B: 0.1% Formic acid in acetonitrile

Gradient	Time (min)	% B
	0	30
	3	90
	5	90
	5.01	30
	8	30

Flow Rate: 400 µL/min
Temperature: 22 °C
Detection: MS/MS (SCIEX 4000 QTRAP®), APCI+
Sample: 1. D7-Indole
 2. Indole
 3. D8-Skatole
 4. Skatole
 5. 5-Chloroindole
 6. D4-Androstenone
 7. Androstenone

Tainted boar meat compounds by LC/MS/MS on a Synergi 4 µm Polar-RP column



APPLICATION

Ordering Information

SynergiTM Polar-RP LC 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
Polar-RP	00A-4371-B0	00B-4371-B0	00D-4371-B0	00B-4371-Y0	00D-4371-Y0	00B-4371-E0

2.5 µm MercuryMSTM LC/MS Cartridges (mm)

Phase	10 x 4.0	10 x 4.0	20 x 2.0	20 x 4.0	Columns (mm)	
Polar-RP	00N-4371-B0-CE	00N-4371-D0-CE	00M-4371-B0-CE	00M-4371-D0-CE	00M-4371-B0	00M-4371-D0

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	4 x 2.0*
Polar-RP	00B-4336-A0	00F-4336-A0	00A-4336-B0	00B-4336-B0	00C-4336-B0	00F-4336-B0	00G-4336-B0	AJ0-6075 for ID: 2.0-3.0 mm

4 µm MidboreTM Columns (mm)

Phase	30 x 3.0	50 x 3.0	150 x 3.0	250 x 3.0	SecurityGuard Cartridges (mm)	
Polar-RP	00A-4336-Y0	00B-4336-Y0	00F-4336-Y0	00G-4336-Y0	4 x 2.0*	AJ0-6075 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	4 x 3.0*
Polar-RP	00A-4336-E0	00B-4336-E0	00C-4336-E0	00F-4336-E0	00G-4336-E0	AJ0-6076 for ID: 3.2-8.0 mm

*SecurityGuard Analytical Cartridges require holder, Part No.: KJ0-4282

Australia

t: +61 (0)2-9428-6444
f: +61 (0)2-9428-6445
auiinfo@phenomenex.com

Austria

t: +43 (0)1-319-1301
f: +43 (0)1-319-1300
anfrage@phenomenex.com

Belgium

t: +32 (0)2 503 4015 (French)
t: +32 (0)2 511 8666 (Dutch)
f: +31 (0)30-2383749
beinfo@phenomenex.com

Canada

t: +1 (800) 543-3681
f: +1 (310) 328-7768
info@phenomenex.com

China

t: +86 (0)20 2282-6668
f: +86 (0)20 2809-8130
chinainfo@phenomenex.com

Denmark

t: +45 4824 8048
f: +45 4810 6265
nordicinfo@phenomenex.com

Finland

t: +358 (0)9 4789 0063
f: +45 4810 6265
nordicinfo@phenomenex.com

France

t: +33 (0)1 30 09 21 10
f: +33 (0)1 30 09 21 11
franceinfo@phenomenex.com

Germany

t: +49 (0)6021-58830-0
f: +49 (0)6021-58830-11
anfrage@phenomenex.com

India

t: +91 (0)40-3012 2400
f: +91 (0)40-3012 2411
indiainfo@phenomenex.com

Ireland

t: +353 (0)1 247 5405
f: +44 1625-501796
eireinfo@phenomenex.com

Italy

t: +39 051 6327511
f: +39 051 6327555
italiainfo@phenomenex.com

www.phenomenex.com

Phenomenex products are available worldwide. For the distributor in your country, contact Phenomenex USA, International Department at international@phenomenex.com

Luxembourg

t: +31 (0)30-2418700
f: +31 (0)30-2383749
nlinfo@phenomenex.com

Mexico

t: 001-800-844-5226
f: 001-310-328-7768
tecnicomx@phenomenex.com

The Netherlands

t: +31 (0)30-2418700
f: +31 (0)30-2383749
nlinfo@phenomenex.com

New Zealand

t: +64 (0)9-4780951
f: +64 (0)9-4780952
nzinfo@phenomenex.com

Norway

t: +47 810 02 005
f: +45 4810 6265
nordicinfo@phenomenex.com

Puerto Rico

t: +1 (800) 541-HPLC
f: +1 (310) 328-7768
info@phenomenex.com

Spain

t: +34 91-413-8613
f: +34 91-413-2290
espinfo@phenomenex.com

Sweden

t: +46 (0)8 611 6950
f: +45 4810 6265
nordicinfo@phenomenex.com

United Kingdom

t: +44 (0)1625-501367
f: +44 (0)1625-501796
ukinfo@phenomenex.com

USA

t: +1 (310) 212-0555
f: +1 (310) 328-7768
info@phenomenex.com

All other countries Corporate Office USA

t: +1 (310) 212-0555
f: +1 (310) 328-7768
info@phenomenex.com

MercuryMS Cartridge Holders

Direct-Connect Cartridge Holders

Part No.	Description
CHO-7187	10 mm direct-connect holder
CHO-7188	20 mm direct-connect holder

Standard Cartridge Holders

Part No.	Description
CHO-5846	10 mm standard holder
CHO-5845	20 mm standard holder



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