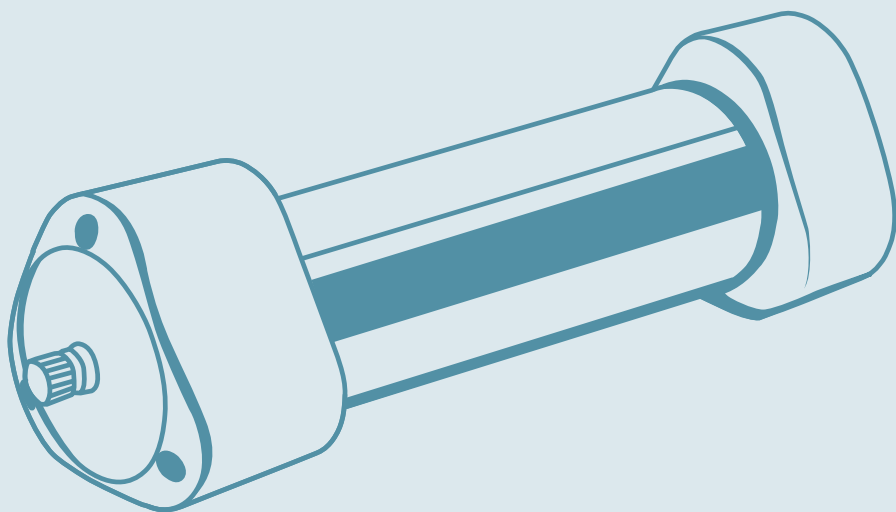


Gemini[®]-NX pH-LC[™]

New pH Stable Media for Maximum
Lifetime in Preparative Purifications

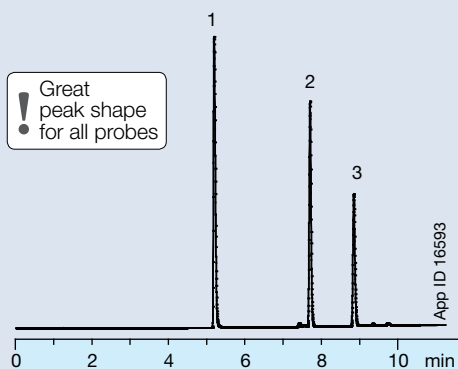


Superior Performance

In volatile buffers for MS directed purification

pH 2.7 in Formic Acid

Gemini®-NX 5 µm C18



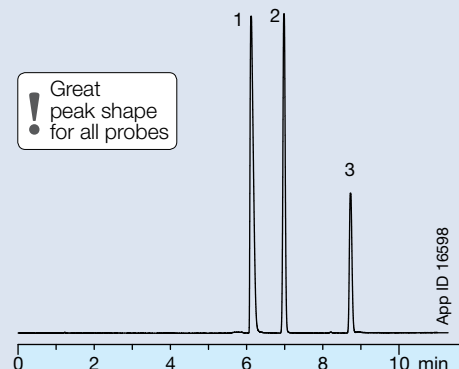
Conditions for all columns
Amitriptyline, Naproxen, Toluene in Formic Acid pH 2.7

Y-axis normalized for all chromatograms.

Dimensions: 150 x 4.6 mm ID
Mobile Phase: A: 0.1 % Formic Acid in Water
 B: 0.1 % Formic Acid in Acetonitrile
Gradient: A/B (95:5) to (5:95) in 10 min, Hold for 2 min
Flow Rate: 1.5 mL/min
Detection: UV @ 254 nm
Temperature: Ambient
Sample: 1. Amitriptyline log P 4.9
 2. Naproxen log P 3.2
 3. Toluene log P 2.5

pH 4.8 in Ammonium Acetate

Gemini®-NX 5 µm C18

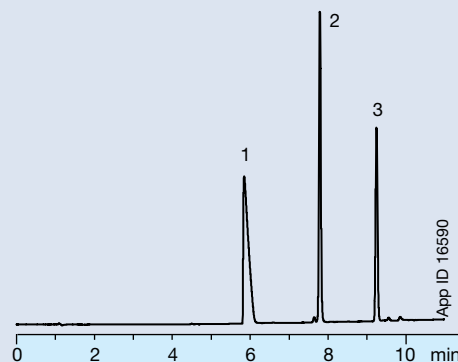


Conditions for all columns
Naproxen, Toluene, Amitriptyline in 10 mM Ammonium Acetate pH 4.8

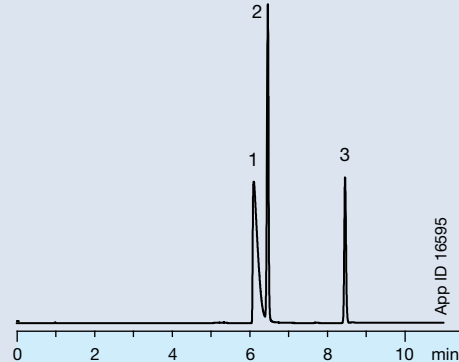
Y-axis normalized for all chromatograms.

Dimensions: 150 x 4.6 mm ID
Mobile Phase: A: 10 mM Ammonium Acetate pH 4.8
 B: Acetonitrile
Gradient: A/B (95:5) to (5:95) in 10 min, Hold for 2 min
Flow Rate: 1.5 mL/min
Detection: UV @ 254 nm
Temperature: Ambient
Sample: 1. Amitriptyline log P 4.9
 2. Naproxen log P 3.2
 3. Toluene log P 2.5

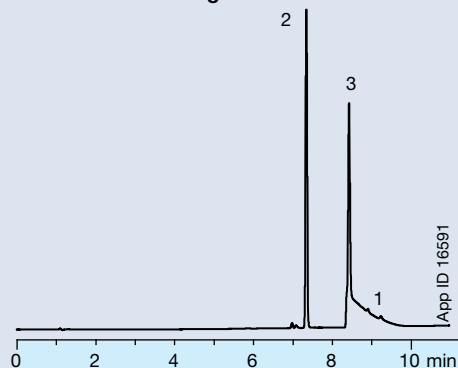
Zorbax® Extend 5 µm C18



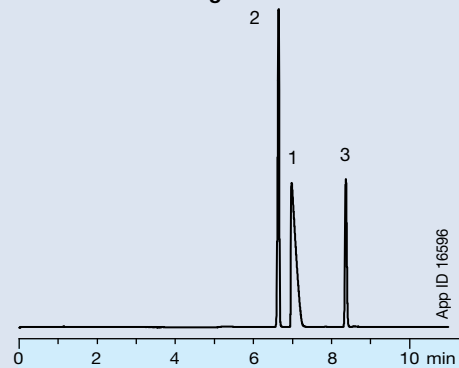
Zorbax® Extend 5 µm C18



Waters® XBridge™ C18



Waters® XBridge™ C18



Axia™ Technology Paired with Gemini®-NX Performance

- Extended Lifetimes from pH 1-12
- Increased Loadability
- Column-to-Column Reproducibility

Extreme Lifetime Study

Gemini-NX offers robust media for extreme conditions at pH 10.5 (40 °C)

% Initial N vs. Exposure Time (min) in High pH

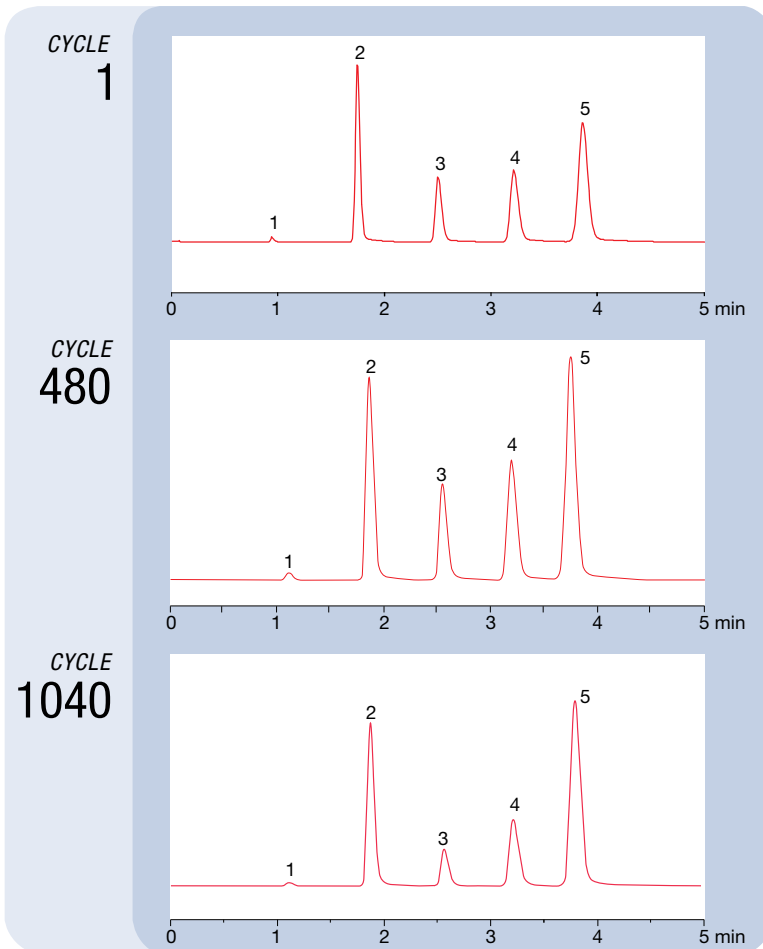
Column: Gemini-NX 5 µm C18 AXIA packed
Dimensions: 100 X 21.2 mm
Part No.: OOD-4454-PO-AX
Mobile Phase: A: 0.2 % Ammonium Hydroxide in Water
 B: 0.2 % Ammonium Hydroxide in Acetonitrile
Gradient: A/B (5:95) in 7 min, equilibrate for 3 min at 5 % B
Flow Rate: 30 mL/min
Temperature: 40 °C

These columns were tested daily in the following isocratic mode:

Mobile Phase: Acetonitrile/Water (65:35)

Flow Rate: 20 mL/min

- Samples:**
1. Uracil
 2. Acetophenone
 3. Benzene
 4. Toluene
 5. Naphthalene



Increased Loading

Loading capacity comparison

	Gemini® -NX	XBridge™	"Loading capacity defined as a 10 % loss in efficiency for test compound"
Base* at High pH	>12.0 mg	6.5 mg	
Base** at Low pH	0.5 mg	0.25 mg	
Acid*** at Low pH	>6.0 mg	3.75 mg	

Amitriptyline at high pH (pH 10.5):

Columns: Gemini®-NX 5 µm C18
XBridge™ 5 µm C18
Dimensions: 150 x 4.6 mm
Mobile Phase: 0.2 % Ammonium Hydroxide in Water/0.2 % Ammonium Hydroxide in Acetonitrile (20:80)
Flow Rate: 1.0 mL/min
Temperature: 30 °C
Detection: UV @ 254 nm

Amitriptyline/Ethylparaben at low pH (pH 2.5):

Columns: Gemini®-NX 5 µm C18
XBridge™ 5 µm C18
Dimensions: 150 x 4.6 mm
Mobile Phase: 0.05 % TFA in Water/0.05 % TFA in Acetonitrile (60:40)
Flow Rate: 1.0 mL/min
Temperature: 30 °C
Detection: UV @ 254 nm

- * Analytical Loading Capacity for Amitriptyline at High pH
- ** Analytical Loading Capacity for Amitriptyline at Low pH
- *** Analytical Loading Capacity for Ethylparaben at Low pH



If Axia™ packed columns do not provide LONGER LIFETIME when used with SecurityGuard PREP, as compared to a competing column of the same particle size, phase and dimensions, send in your comparative data and the column within 45 days for a FULL REFUND.

Supplying Your Laboratory

Gemini® -NX Ordering Information

5 µm Axia™ Packed Preparative Columns (mm)								SecurityGuard™ Cartridges	
Phase	50 x 21.2	100 x 21.2	150 x 21.2	250 x 21.2	50 x 30	75 x 30	100 x 30	15 x 21.2 mm*	15 x 30.0 mm**
C18	00B-4454-P0-AX	00D-4454-P0-AX	00F-4454-P0-AX	00G-4454-P0-AX	00B-4454-U0-AX	00C-4454-U0-AX	00D-4454-U0-AX	AJ0-8370	AJ0-8371
								for ID: 18-29 mm	30-49 mm

10 µm Axia™ Packed Preparative Columns (mm)				SecurityGuard™ Cartridges		
Phase	50 x 21.2	100 x 21.2	150 x 21.2	250 x 21.2	15 x 21.2 mm*	15 x 30.0 mm**
C18	00B-4455-P0-AX	00D-4455-P0-AX	00F-4455-P0-AX	00G-4455-P0-AX	AJ0-8370	AJ0-8371
					for ID: 18-29 mm	30-49 mm

* 18-29 mm ID PREP SecurityGuard Cartridges Require Holder, Part No.: **AJ0-8223**

** 30-49 mm ID PREP SecurityGuard Cartridges Require Holder, Part No.: **AJ0-8277**

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