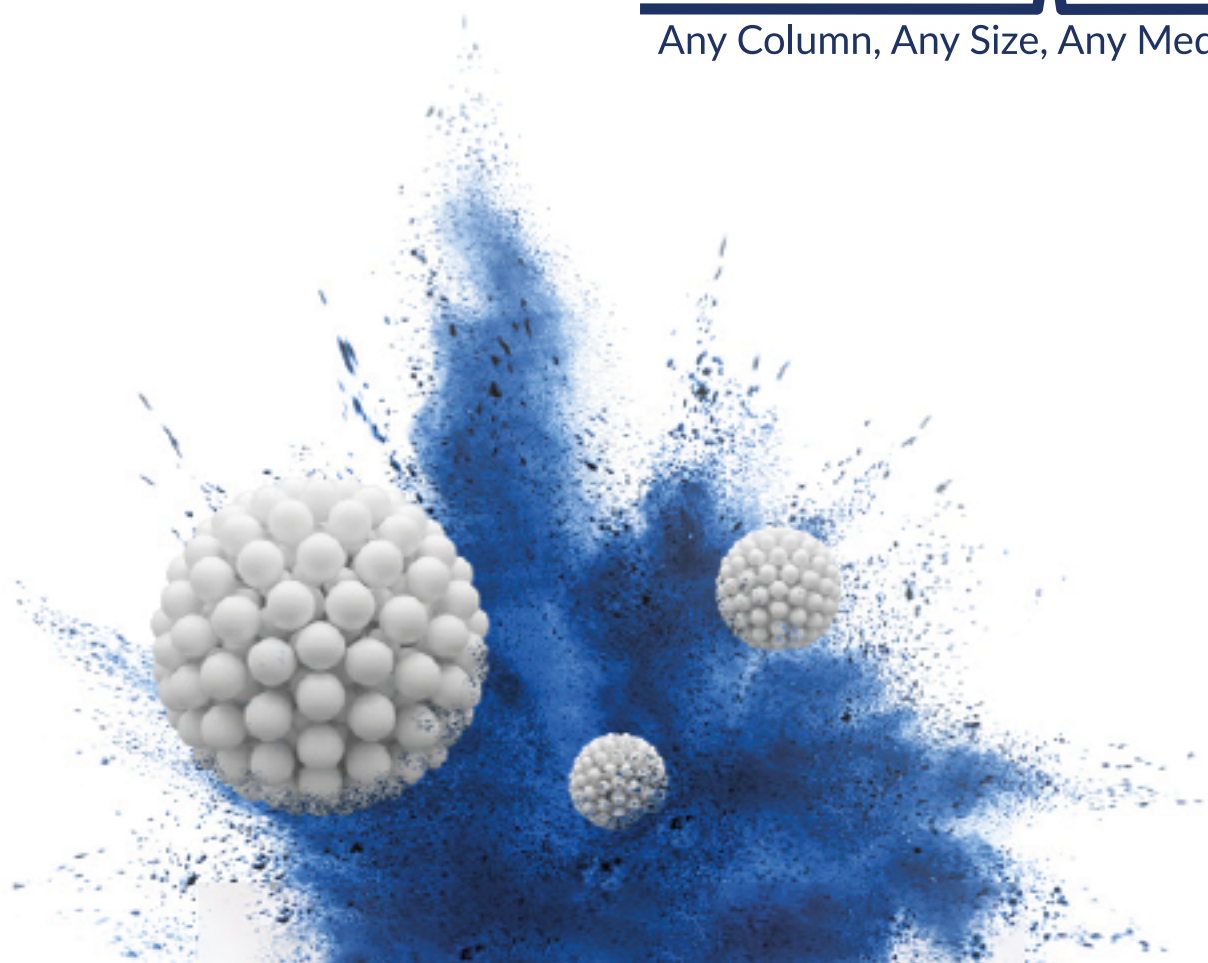


Dr. Maisch

Any Column, Any Size, Any Media



ReproSil XR

eXtRa High Purity Phases

MADE BY DR. MAISCH



CONTENT

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- P 5 REPRODUCIBILITY AND PERFORMANCE
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- P 10 - 11 REPOSIL XR C18MS

**REPOSIL XR
MADE BY DR. MAISCH**

From one of the biggest
High-**P**erformance **L**iquid **C**hromatography (HPLC) and
Ultra **H**igh-**P**erformance **L**iquid **C**hromatography (UHPLC)
Column Manufacturers in Europe.

Choose Wisely - ReproSil XR

Dr. Maisch HPLC GmbH sets a new standard in HPLC columns. We make everything - from the silica particle to the finished product. Our streamlined manufacturing process allows delivery of the highest performance at an exceptional value!

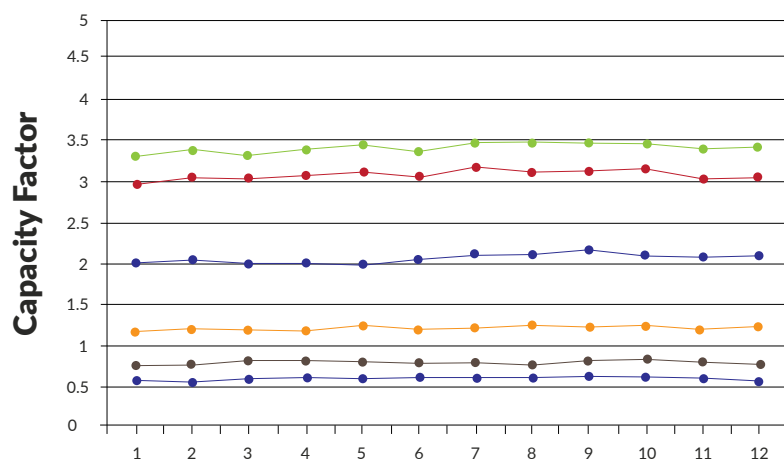
eXtRa high quality HPLC phases

Extra High purity silica and uniform bonded phase coverage translates to symmetrical peaks for acids/bases, and predictable reversed phase selectivity. Whether routine analysis or new method developments, use ReproSil XR columns to get premium performance for a low budget.

ReproSil XR	Specifications
Modifications	Silica, C18, C18(MS), C8, Phenyl, CN, SCX, SAX
Endcapping	(for C18, C8, Phenyl)
Surface area	250 m ² /g , 100 m ² /g
Pore size	120 Å, 300 Å
Particle size	1.5, 3, 3.5, 5, 7 and 10 µm

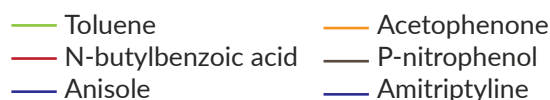
Reproducible Methods Start with Reproducible Columns

Highly Reproducible Selectivity



Tightly controlled silica synthesis and carefully performed bonding result in minimum variations of selectivity and capacity factors.

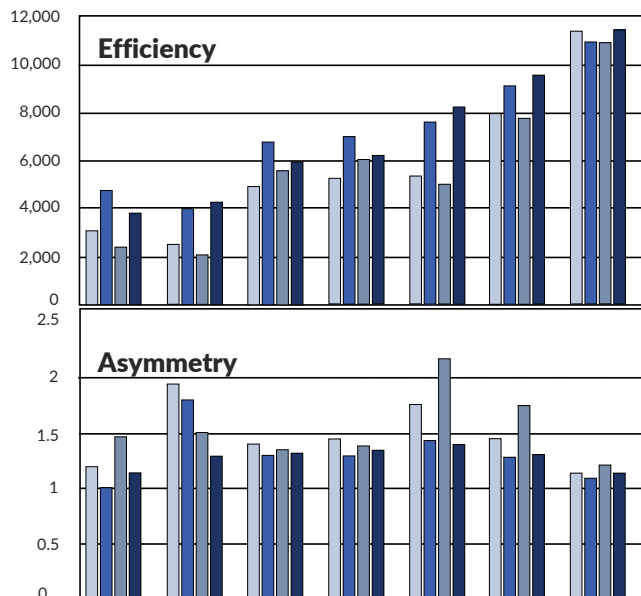
Batch



Consistent batch-to-batch capacity for acidic, basic & neutral compounds.

HIGHLY EFFICIENT AND PERFECT REPRODUCIBILITY

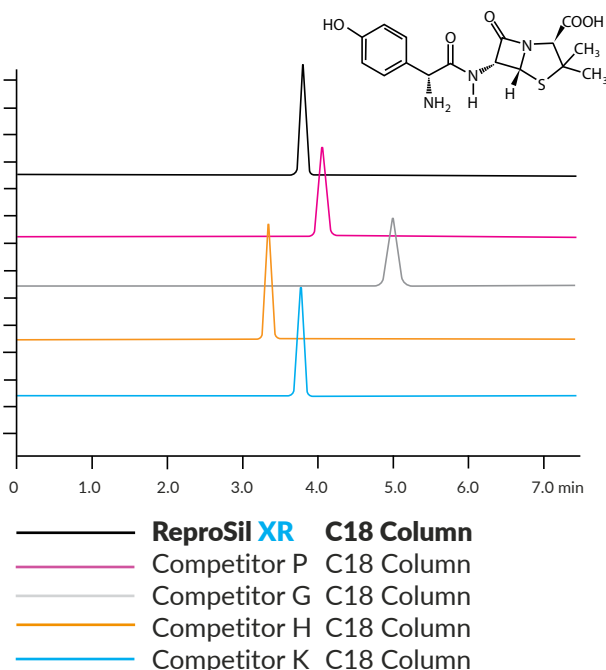
Expect competitive performance



Efficient manufacturing processes are the driving force for competitive pricing. But certainly not at the risk of competitive performance. **ReproSil XR** columns show similar or better efficiency and asymmetry for challenging basic and acidic compounds compared to industry leading LC columns.

ReproSil XR columns compares favorable to leading competitor columns.

Amoxicillin (U.S.P.)



Column: ReproSil XR 120 C18, 5 μ m, 120 Å, 250 x 4.6 mm, (PN: rx15.9e.s2546)

Mobile phase: Isocratic, 50 mM KH₂PO₄, pH 5 : MeCN 96:4 (v:v)

Flow rate: 1.5 ml/min

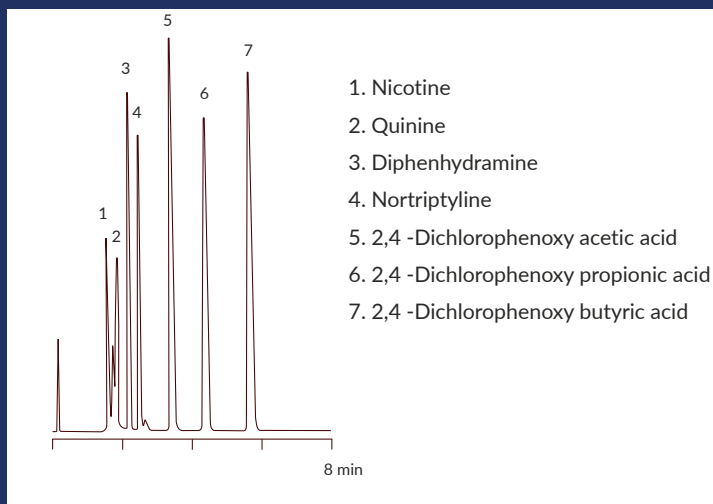
Detector: UV at 230 nm

Column temp: 30° C

Injection vol: 10 μ l

	ReproSil XR C18	Comp P C18	Comp G C18	Comp H C18	Comp K C18
Theoretical plates	8650	7240	6230	7060	7680
Tailing factor	1.0	1.2	1.1	1.0	1.0

Standards Mix

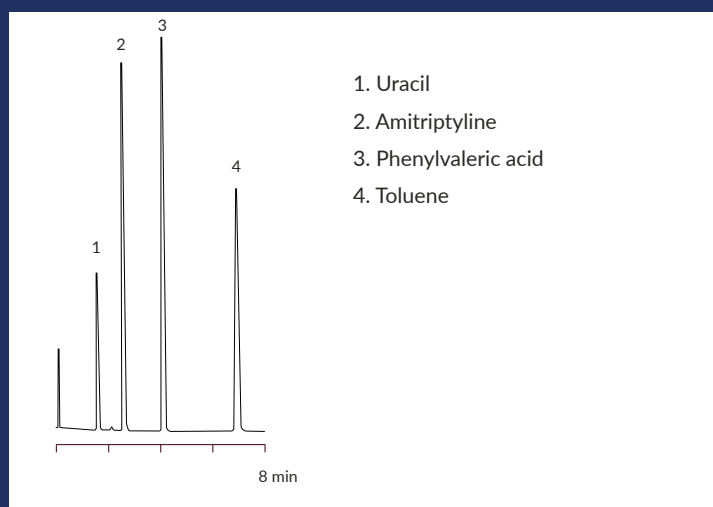


Column: **ReproSil XR** 120 C18, 5 μm ,
120 Å,
150 x 4.6 mm
(PN: rx15.9e.s1546)

Mobile phase:
MeCN : 50 mM KH_2PO_4
50:50 (v:v) pH 3 at 35°C

Baseline resolution challenging separations.

Acids, Bases and Neutrals

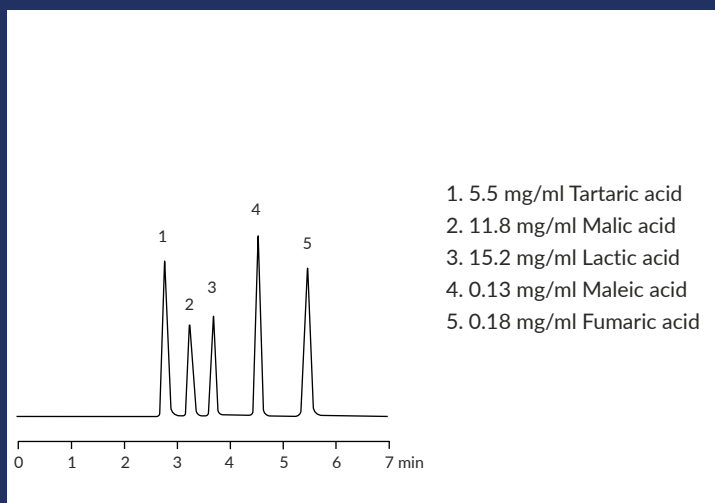


Column: **ReproSil XR** 120 C18, 5 μm ,
120 Å,
150 x 4.6 mm
(PN: rx15.9e.s1546)

Mobile phase:
MeCN : 50 mM KH_2PO_4
50:50 (v:v) pH 3 at 35°C

Symmetric peaks for acids and bases.

Organic Acids



Column: **ReproSil XR** 120 C18, 5 µm,
120 Å,
150 x 4.6 mm
(PN: rx15.9e.s1546)

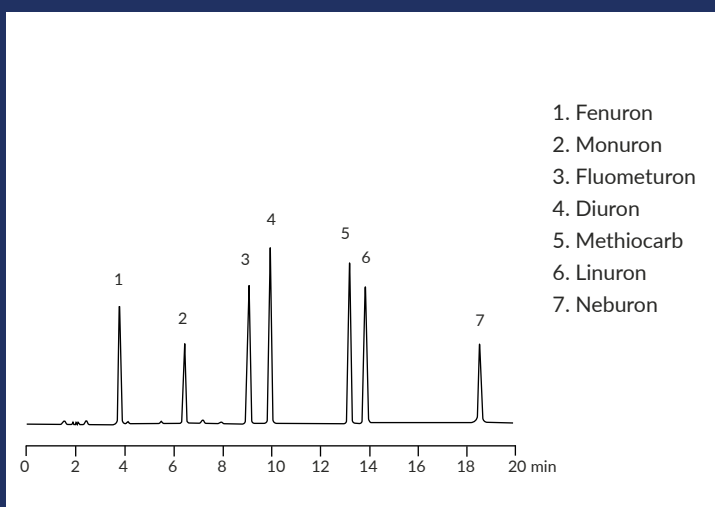
Mobile phase: 25 mM KH₂PO₄ : MeOH
97:3 (v:v)

Flow rate: 0.7 ml/min

Detector: UV at 220 nm

Injection vol: 1 µl

Carbamate & Urea



Column: **ReproSil XR** 120 C18, 5 µm,
120 Å,
150 x 4.6 mm
(PN: rx15.9e.s1546)

Mobile phase: **A:** 25 mM KH₂PO₄
pH 3.2
B: MeCN

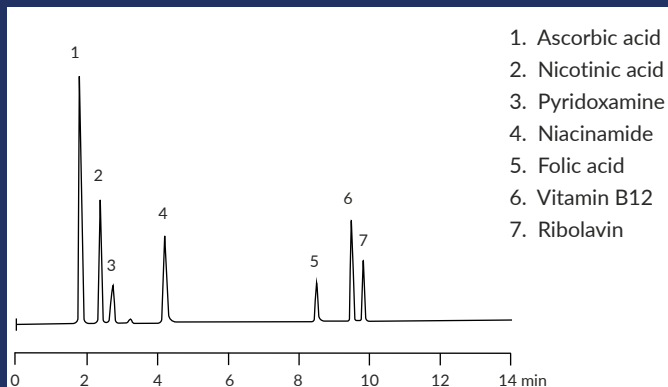
Gradient: (Time, %B): (0,30), (20,60)

Flow rate: 1.0 ml/min

Detector: UV at 240 nm

Injection vol: 10 µl

Water Soluble Vitamins



Column: **ReproSil XR** 120 C18, 5 μ m, 120 Å, 150 x 4.6 mm (PN: rx15.9e.s1546)

Mobile phase: **A:** 100 mM $\text{NH}_4\text{H}_2\text{PO}_4$ Buffer, pH 4.5
B: MeCN

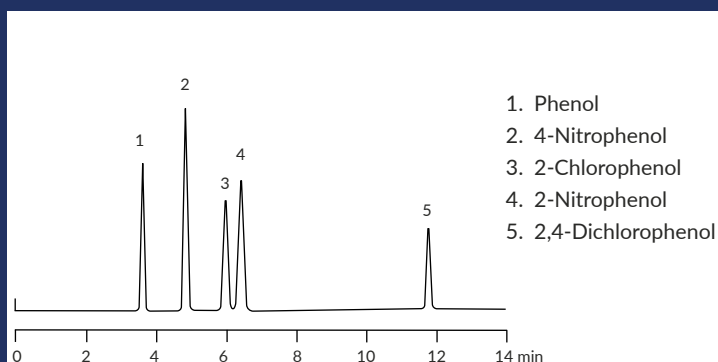
Gradient: (Time, %B): (0,5), (4,5), (10,40), (15,40)

Flow rate: 1.0 mL/min

Detector: UV at 254 nm

Injection vol: 2 μ l

Phenols



Column: **ReproSil XR** 120 C18, 5 μ m, 120 Å, 150 x 4.6 mm (PN: rx15.9e.s1546)

Mobile phase: **A:** 1% CH_3COOH in H_2O
B: 1% CH_3COOH in MeOH

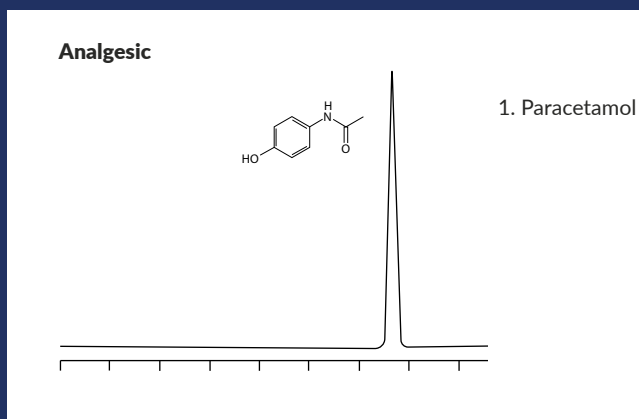
Gradient: (Time, %B): (0,45), (6,45) (8,60), (15,80)

Flow rate: 1.0 mL/min

Detector: UV at 280 nm

Injection vol: 10 μ l

Paracetamol effervescent tablets on chinese pharmacopeia assay



Column: **ReproSil XR** 120 C18, 5 μ m, 120 Å, 250 x 4.6 mm (PN: rx15.9e.s2546)

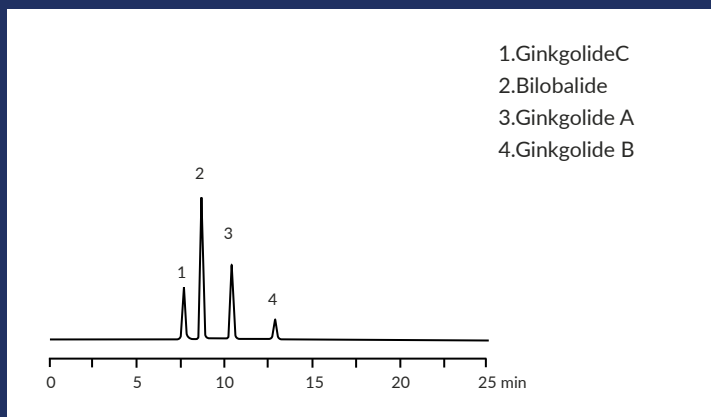
Mobile phase: KH_2PO_4 : MeOH 80:20 (v:v)

Flow rate: 1.0 mL/min

Detector: UV at 254 nm

GENERAL USE SELECTIVITY

Folium Ginkgo



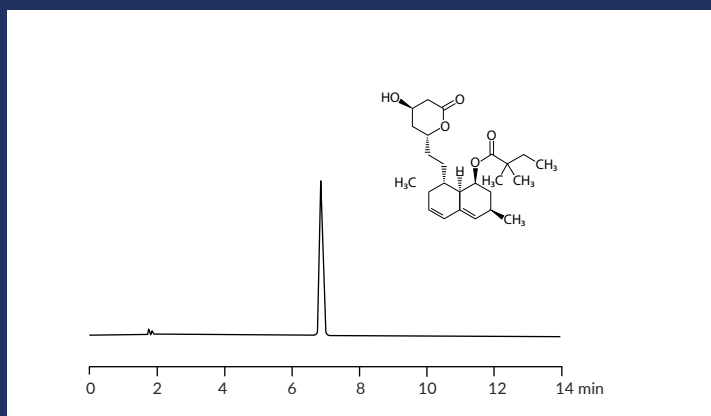
Column: ReproSil XR 120 C18, 5 µm,
120 Å,
150 x 4.6 mm
(PN: rx15.9e.s1546)

Mobile phase: MeOH:THF:H₂O 25:10:65 (v:v:v)

Flow rate: 1.0 ml/min

Detector: ELSD

Simvastatin Tablets (U.S.P)



Column: ReproSil XR 120 C18, 5 µm,
120 Å,
250 x 4.6 mm
(PN: rx15.9e.s2546)

Mobile phase: 0.39% KH₂PO₄ pH 4.5 : MeCN
35:65 (v:v)

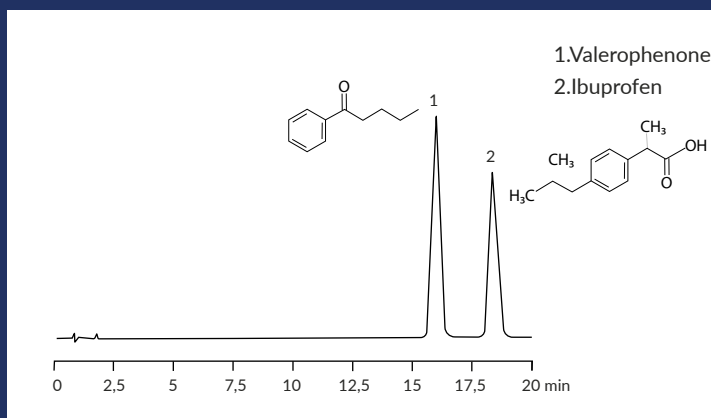
Flow rate: 1.5 ml/min

Detector: UV at 238 nm

Column temp: 45°C

Injection vol: 10 µl

Ibuprofen (U.S.P.)



Column: ReproSil XR 120 C18, 5 µm,
120 Å,
150 x 4.6 mm
(PN: rx15.9e.s1546)

Mobile phase: H₂O (adjusted with
H₃PO₄ to a pH of 2.5) :
MeCN 65:35 (v:v)

Flow rate: 2 ml/min

Detector: UV at 214 nm

Injection vol: 5 µl

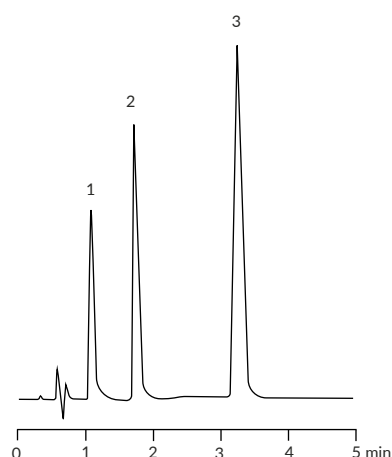
REPROSIL XR 120 C18MS

Difficult acids/bases or chelates? No Problem!

Outstanding features of ReproSil XR

High Polarity:	Different selectivity to current phases.
High Base Retention:	Uses high % organic: helps MS detection.
Acids, Bases, Chelates:	All the benefits of pure silica.
100% Aqueous Stability:	Resists phase collapse.
Compatible with MS buffers:	Good with volatile buffers.
High Stability:	No embedded phase to limit stability.
Low MS bleed:	Helps MS Detection.

Separate Highly Basic Components at Neutral PH



1. Phenylephrine
2. Diphenhydramine
3. Amitriptyline

Column: ReproSil XR 120 C18MS,
1.5 μm , 120 Å,
50 x 2.0 mm

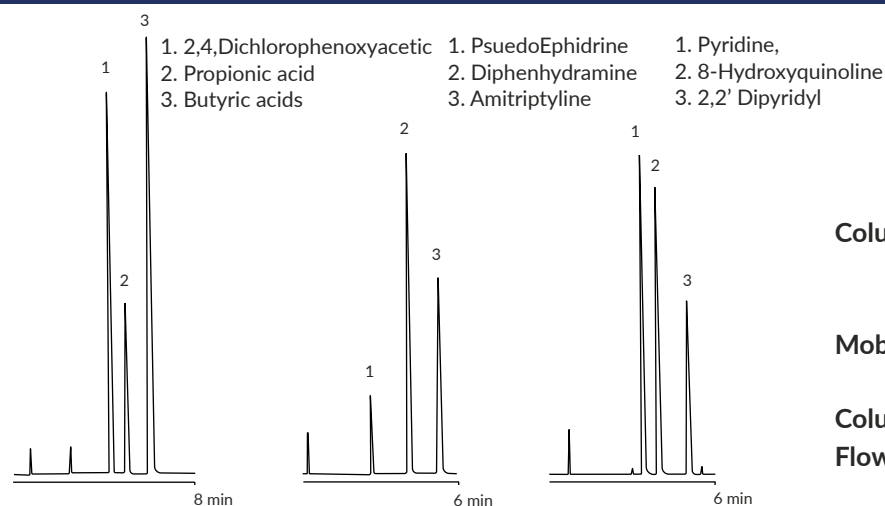
Mobile phase: (PN: rx115.9ms.s0502)
50mM NH_4COOH , pH 7:
MeOH (20:80)

Column Temp: 40°C

Flow rate: 0.2mL/min

Detector: UV at 210nm

Excellent Peak Shape for Acids, Bases and Chelates



Column: ReproSil XR 120 C18MS,
5 μm , 120 Å,
150 x 4.6 mm

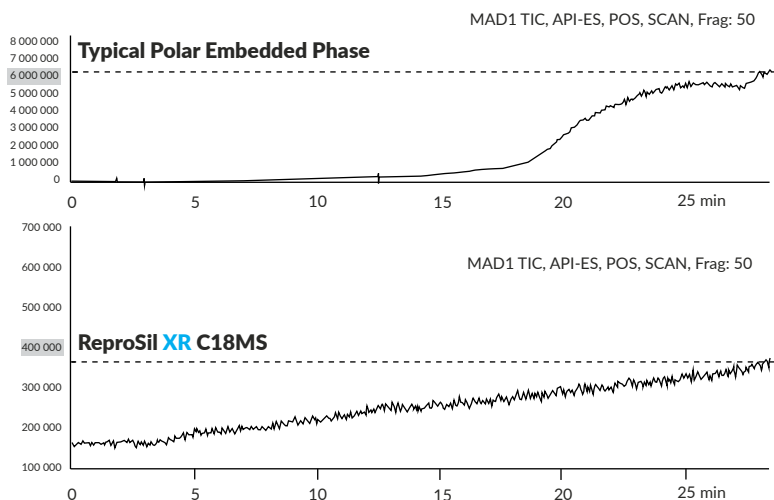
Mobile phase: (PN: rx15.9ms.s1546)
50% MeCN : 50% 50 mM

Column Temp: KH_2PO_4 pH 3,

Flow rate: 35°C

MS Bleeding reduced by Factor 17

Comparison of MS Bleeding

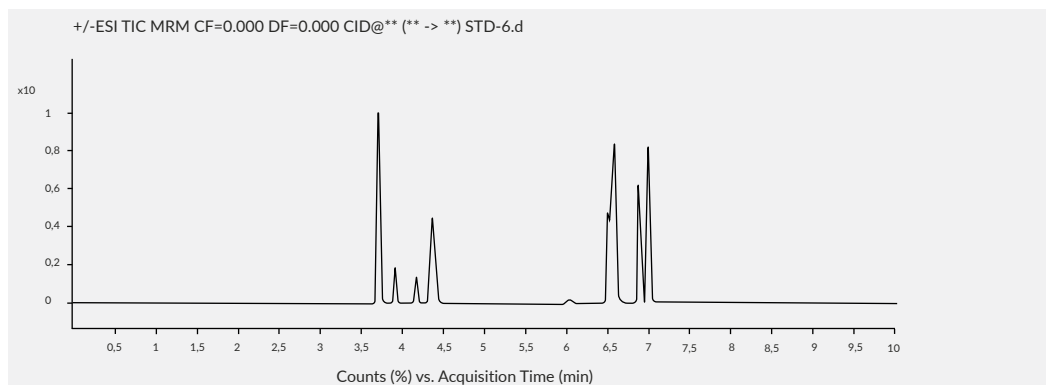


ReproSil XR 120 C18MS shows minimal bleed when used in LC/MS with TFA gradients. The first trace shows bleed levels typical of polar embedded/endcapped product.

4 Important Benefits

- Higher methanol level for improved MS sensitivity
- 2.5 x lower ammonium formate entering the MS (10% aqueous vs. 25%)
- Half the backpressure due to lower viscosity.
- Faster analysis due to the potential to use higher flowrate without excessive backpressure.

Pesticides



Fragmentor Voltage 150 Collision Energy 45 Ionization Mode ESI

Column: **ReproSil XR 120 C18MS**, 1.5 μ m, 120 Å, 10 x 2mm

Mobile phase: A: H₂O
B: MeCN

Gradient:

A:	0	2	3	5	6	8	8.1	10
B:	5	5	35	35	95	95	5	5

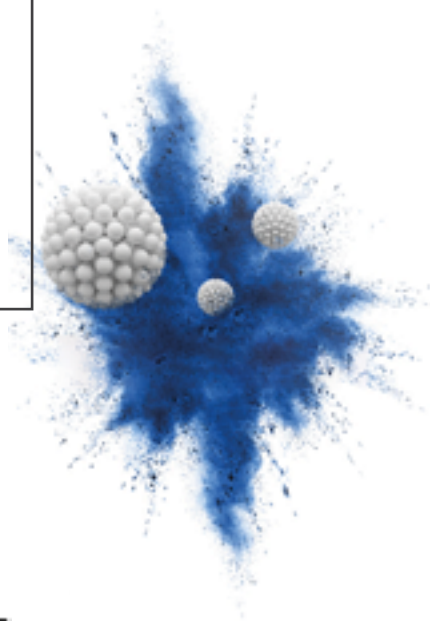
Flow rate: 0.4ml/min

Detector: 6400 Series Triple Quadrupole

Dr. Maisch

Any Column, Any Size, Any Media

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