

Inertsil® Sulfa C18

Analysis of antibiotic drugs and drug residues in products of animal origin has become an important element of ensuring food safety.

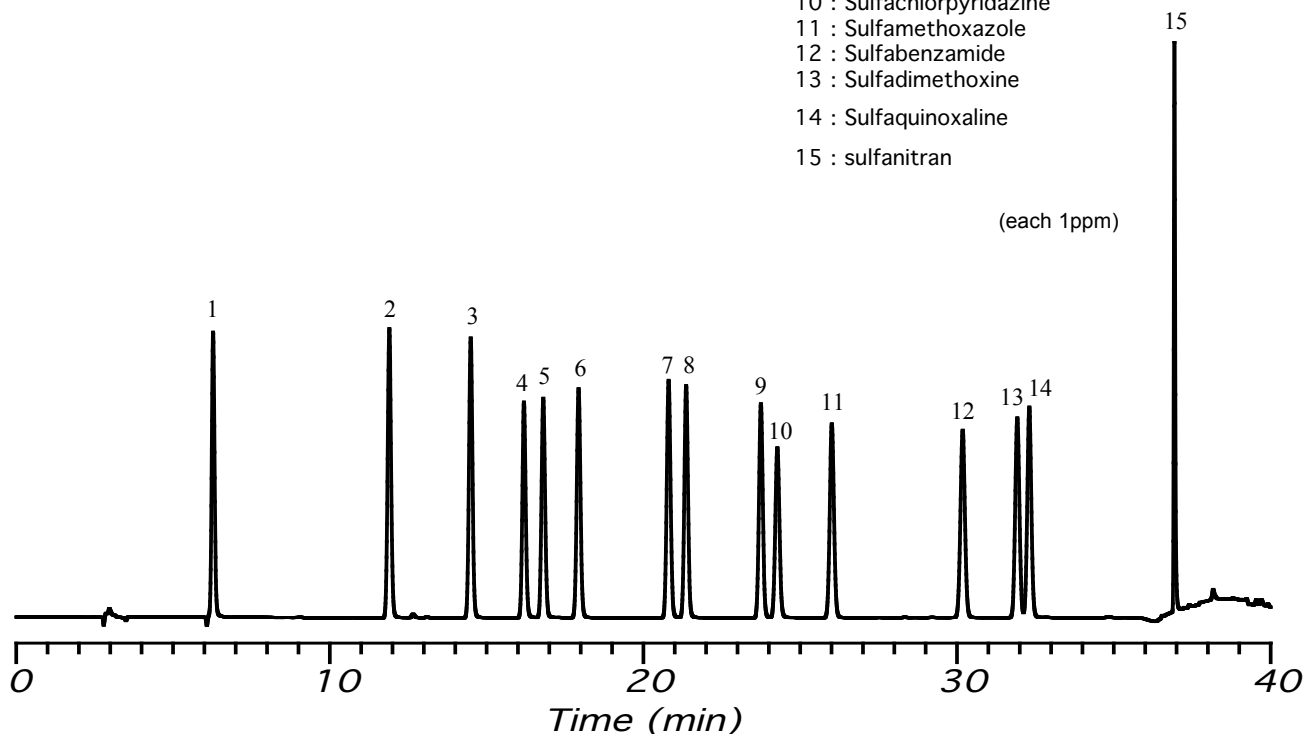
Inertsil® Sulfa C18 is suitable not only for the analyses of sulfa drugs but also for the screening of synthetic antibacterial agents which are directed in the food safety investigative guideline.

Each batch of **Inertsil® Sulfa C18** is tested for the effective separation of sulfa drugs, as shown below, and is provided with a copy of the chromatogram.

Analysis of 15 sulfa reagents

System : GL-7400 HPLC system
Column : Inertsil Sulfa C18 (3 μ m, 150 x 4.6 mm I.D.)
Eluent : A) CH₃CN/CH₃COOH = 777.66/3.15, w/w
 B) CH₃COOH/H₂O = 3.15/997, w/w
 A/B = 0/100 -33min- 33/67 -3min- 90/10 -4min-
 90/10
Flow rate : 1.0 mL/min
Col. Temp. : 40 °C
Detection : UV 270 nm
Injection Vol. : 10 μ L

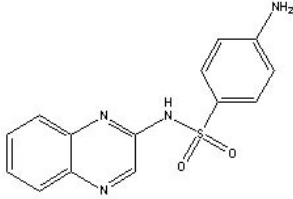
- 1 : Sulfanilamide
- 2 : Sulfacetamide
- 3 : Sulfadiazine
- 4 : Sulfathiazole
- 5 : Sulfapyridine
- 6 : Sulfameradine
- 7 : Sulfacymidine
- 8 : Sulfamethoxypridazine
- 9 : Sulfamonomethoxine
- 10 : Sulfachlorpyridazine
- 11 : Sulfamethoxazole
- 12 : Sulfabenzamide
- 13 : Sulfadimethoxine
- 14 : Sulfaquinoxaline
- 15 : sulfanitran



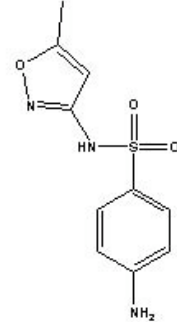
ISO14001: Save Energy and Resources!!

Antibacterial agents including sulfa drugs consist of polar functional groups which can cause adsorption on the packing material.

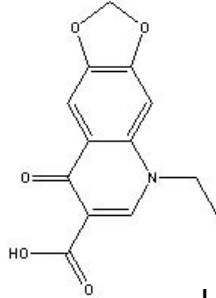
Sulfaquinolone [59-40-5]



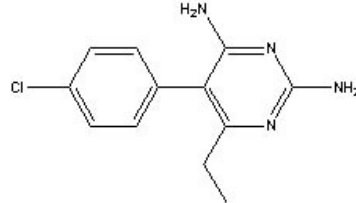
Sulfamethoxazole [723-46-6]



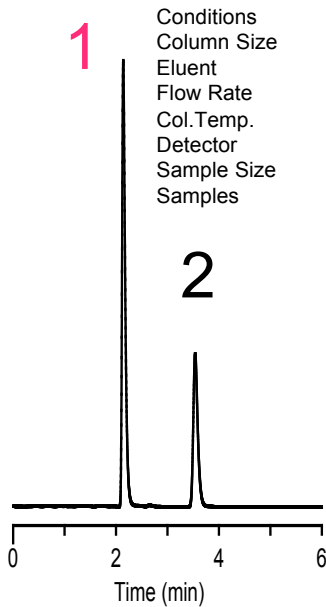
oxolinic acid [14698-29-4]



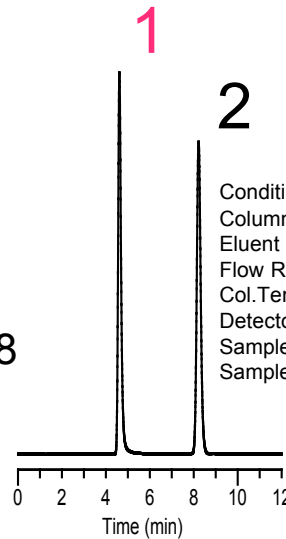
Pyrimethamine [58-14-0]



High inertness to basic and acidic compounds enables **Inertsil Sulfa C18** to effectively analyze antibacterial agents

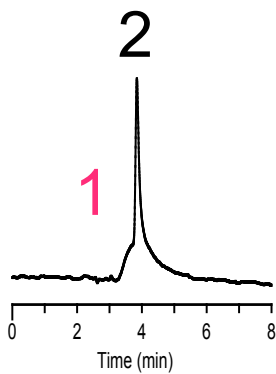


Conditions
 Column Size :4.6 × 250 mm
 Eluent :0.1% H3PO4(v/v)
 Flow Rate :1.0 mL/min
 Col.Temp. :40 °C
 Detector :UV210 nm
 Sample Size :4 uL
 Samples :1)Formic Acid 0.1 %(v/v)
 2)Acetic Acid 0.1 %(v/v)

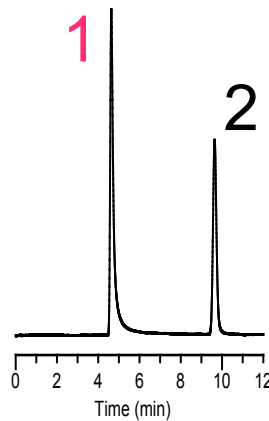


Conditions
 Column Size:4.6 × 250 mm
 Eluent :CH3OH / H2O = 30 / 70
 Flow Rate :1.0 mL/min
 Col.Temp. :40 °C
 Detector :UV254 nm
 Sample Size :4 uL
 Samples :1)Pyridine 0.09 mg/mL
 2)Phenol 0.41 mg/mL

Inertsil Sulfa C18



Waters' Xterra RP-C18



Analyses of Antibacterial Agents directed in the Food Sanitation Investigation Guideline

Standard Reagent I

1 : Clopidol 5ppm 3: Sulfamonomethoxine 3ppm
 2 : Sulfamerazine 2ppm 4 : Oxolinic Acid 2ppm
 Morantel Citrate 5ppm 5 : Sulfadimethoxine 3ppm

Standard Reagent II

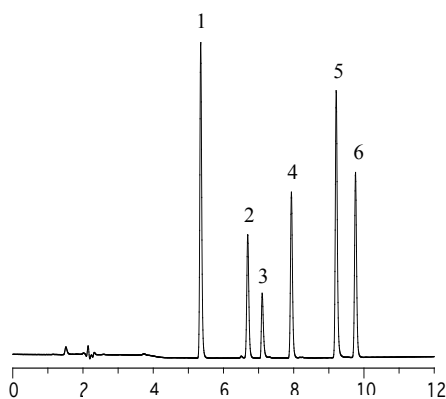
1 : Trimethoprim 5ppm 5 : Pyrimethamine 5ppm
 2 : Ormetoprim 5ppm 6 : **Difurazone** 10ppm
 3 : Carbadox 2ppm 7 : Nalidixic Acid 3ppm
 4 : Thiamphenicol 5ppm

Standard Reagent III

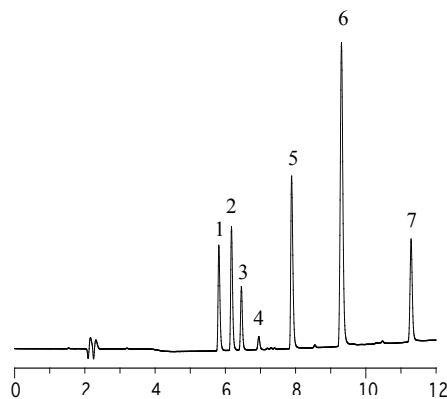
1 : Olaquinox 3ppm 4 : Sulfaquinoxaline 3ppm
 2 : Sulfacycline 2ppm 5 : Piromidic Acid 2ppm
 3 : Furazolidone 3ppm 6 : Nicarbazine 3ppm

HPLC Conditions

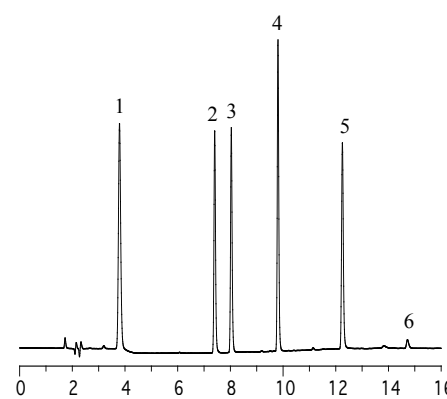
System : GL-7400 HPLC system
Column : Inertsil Sulfa C18 (3 μm, 150 x 4.6 mm I.D.)
Eluent : A) CH₃CN/H₂O /CH₃COOH = 10/90/0.3, v/v/v
 B) CH₃CN/H₂O /CH₃COOH = 60/40/0.3, v/v/v
 A/B = 100/0 -10 min- 0/100 -10 min- 0/100
 -0.5 min- 100/0 -15 min- 100/0
Flow rate : 1.0 mL/min
Col. Temp. : 40 °C
Detection : UV 265 nm
 UV 350nm (GL-7452 PDA Detector)
 (6) Nicarbazine is usually detected at 350nm
Injection Vol. : 10 μL



Standard Reagent I



Standard Reagent II



Standard Reagent III

Column Ordering Information

Packing Size	I.D.(mm)	2.1	3.0	4.0	4.6
	Length(mm)	Cat.No.	Cat.No.	Cat.No.	Cat.No.
3_m	100	IN5020-07504	IN5020-07514	IN5020-07524	IN5020-07534
	150	IN5020-07505	IN5020-07515	IN5020-07525	IN5020-07535
5_m	150	IN5020-07545	IN5020-07555	IN5020-07565	IN5020-07575
	250	IN5020-07546	IN5020-07556	IN5020-07566	IN5020-07576

* End-fitting is Waters 1/16" type. * For other column sizes, please give us an enquiry. (Upon request)

Cartridge Guard Column E			Cartridge Guard Column E (2EA./Set)	Cartridge Guard Column E Holder Set (2 Cartridges & 1 Holder)
Analytical Column I.D. mm Size	Guard Column I.D. mm Size	Guard Column Length mm Size	Cat.No.	Cat.No.
2.1 mm	3.0 mm	10 mm	IN5020-08515	IN5020-08525
3.0 mm		20 mm	IN5020-08565	IN5020-08575
4.0 mm	4.0 mm	10 mm	IN5020-08510	IN5020-08520
4.6 mm		20 mm	IN5020-08560	IN5020-08570

* When ordering, please specify the packing material and the particle size.

* Only Waters 1/16" end-fitting type is compatible for our Cartridge Guard Column E.

* Conventional Guard Columns and GL-Cart Guard Columns are also available. For more information, please feel free to contact us.

●The specification and the column type are subject to change without notice due to continual improvements.

●All brand names and product names are trademarks or registered trademarks of GL Sciences Inc.

