

Silica-based Reversed Phase Chromatography Columns (ODS Columns)

<https://www.shodex.de/silica-c18-columns>

Features

C18M

- Monomeric type ODS column, fully end capped high purity silica (99.99 % or higher)
- Fulfills USP-NF L1 requirements

• Standard columns

Product Code	Product Name	Plate Number (TP/column)	Functional Group	Particle Size (µm)	Carbon Load (%)	Pore Size (Å)	Column Size (mm) I.D. x Length	Shipping Solvent
F6650040	Silica C18M 4D	≥ 10,000	Octadecyl	5	16	100	4.6 x 150	H ₂ O/CH ₃ OH = 30/70
F6650041	Silica C18M 4E	≥ 16,000	Octadecyl	5	16	100	4.6 x 250	H ₂ O/CH ₃ OH = 30/70

Base Material: Silica

Silica-based Reversed Phase Chromatography Columns (ODS Columns for UHPLC)

Features

C18U

- ODS columns for UHPLC (Maximum pressure: 100 MPa)
- Achieves high performance analysis with sub-2 µm particles
- Organic/inorganic silica hybrid particles provide excellent resolution and mechanical stability and improved alkali durability (from pH 1 to 12)
- Usable in 100 % water and buffer solution
- Fulfills USP-NF L1 requirements

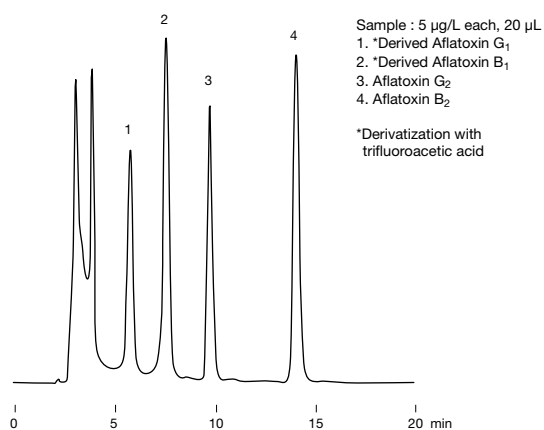
• Semi-micro columns

Product Code	Product Name	Functional Group	Particle Size (µm)	*Carbon Load (%)	Pore Size (Å)	Column Size (mm) I.D. x Length	Shipping Solvent
F6654011	Silica C18U 2B	Octadecyl	1.9	20	120	2.0 x 50	CH ₃ CN
F6654012	Silica C18U 2D	Octadecyl	1.9	20	120	2.0 x 150	CH ₃ CN

* Includes carbon in hybrid silica base material (8 %).

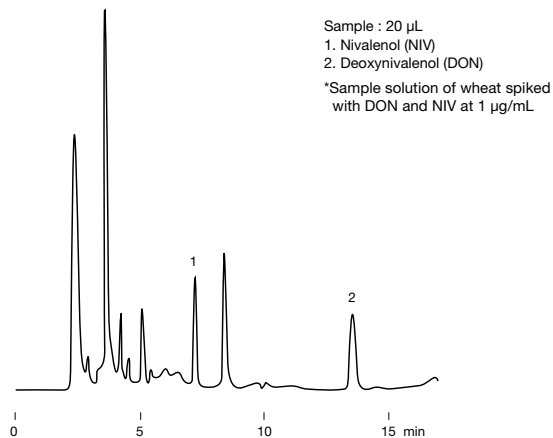
Base Material: Organic/inorganic hybrid silica

Aflatoxins



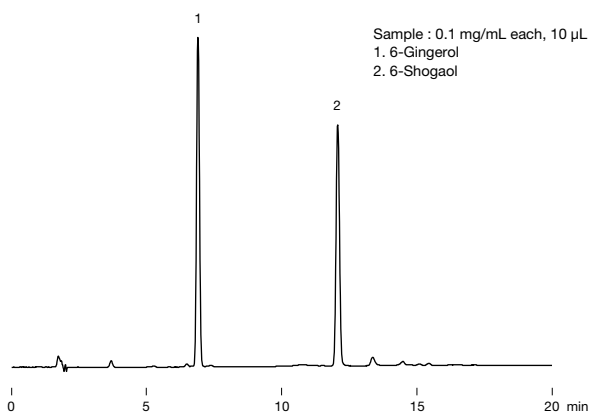
Column : Shodex Silica C18M 4E
 Eluent : H₂O/CH₃CN/CH₃OH = 60/10/30
 Flow rate : 1.0 mL/min
 Detector : Fluorescence (Ex. : 365 nm, Em. : 450 nm)
 Column temp. : 40 °C

Mycotoxins of trichothecene type



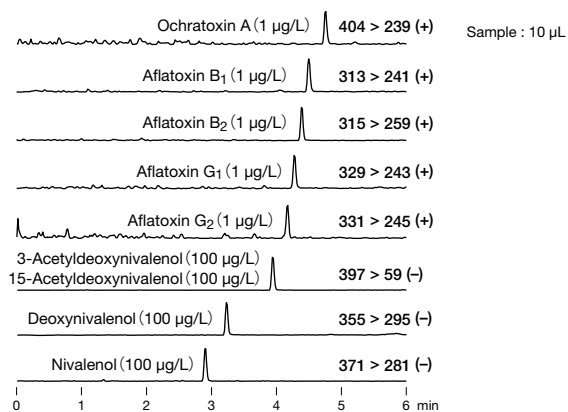
Column : Shodex Silica C18M 4E
 Eluent : H₂O/CH₃CN/CH₃OH = 90/5/5
 Flow rate : 1.0 mL/min
 Detector : UV (220 nm)
 Column temp. : 40 °C

Gingerol and shogaol



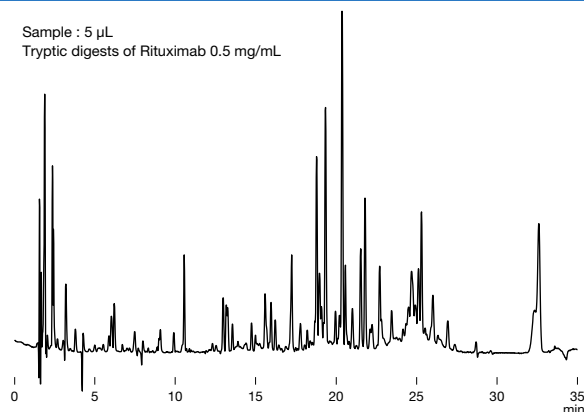
Column : Shodex Silica C18M 4D
 Eluent : (A); H₂O/(B); CH₃CN
 Linear gradient; 40 B % to 70 B % (15 min)
 Flow rate : 1.0 mL/min
 Detector : UV (280 nm)
 Column temp. : 40 °C

LC/MS/MS simultaneous analysis of aflatoxins



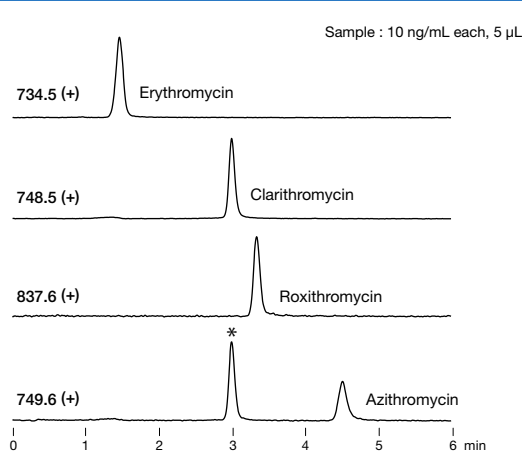
Column : Shodex C18U 2B
 Eluent : (A); 10 mM CH₃COONH₄ aq. / (B); CH₃OH
 Gradient;
 0 to 90 B % (0 to 5 min), 90 B % (5 to 7 min), 0 B % (7.01 min),
 0 B % (7.01 to 10 min)
 Flow rate : 0.4 mL/min
 Detector : ESI-MS/MS (MRM)
 Column temp. : 40 °C

Tryptic digests of rituximab



Column : Shodex C18U 2D
 Eluent : (A); 0.1 % TFA in H₂O/(B); 0.1 % TFA in CH₃CN
 Linear gradient;
 10 to 40 B % (0 to 25 min), 40 B % (25 to 30 min),
 90 B % (30 to 35 min)
 Flow rate : 0.2 mL/min
 Detector : UV (220 nm)
 Column temp. : 40 °C

LC/MS simultaneous analysis of macrolide antibiotics



Column : Shodex C18U 2B
 Eluent : 0.05 % NH₃ aq./CH₃CN = 40/60
 Flow rate : 0.4 mL/min
 Detector : ESI-MS (SIM)
 Column temp. : 40 °C

*: Clarithromycin containing one ¹³C isotope