

# Silica-based Reversed Phase Chromatography Columns (ODS Columns)

## Features

### C18

- Fully end capped ODS column available at very reasonable price
- Fulfills USP-NF L1 requirements

### 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
F6651010	<b>C18-4D</b>	≥ 13,000	Octadecyl	5	17	120	<b>4.6 x 150</b>	H <sub>2</sub> O/CH <sub>3</sub> OH = 25/75
F6651011	<b>C18-4E</b>	≥ 21,000	Octadecyl	5	17	120	<b>4.6 x 250</b>	H <sub>2</sub> O/CH <sub>3</sub> OH = 25/75
F6650040	<b>Silica C18M 4D</b>	≥ 10,000	Octadecyl	5	16	100	<b>4.6 x 150</b>	H <sub>2</sub> O/CH <sub>3</sub> OH = 30/70
F6650041	<b>Silica C18M 4E</b>	≥ 16,000	Octadecyl	5	16	100	<b>4.6 x 250</b>	H <sub>2</sub> O/CH <sub>3</sub> 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

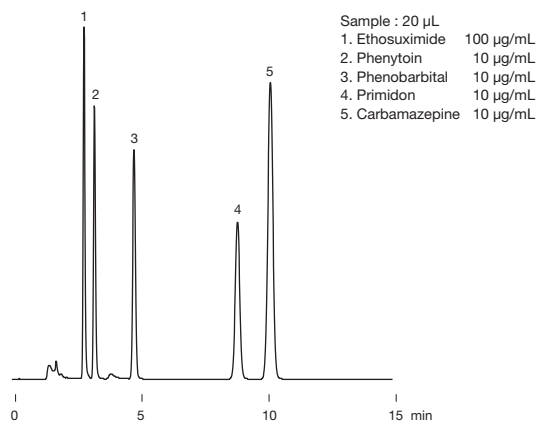
### Semi-micro columns

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

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

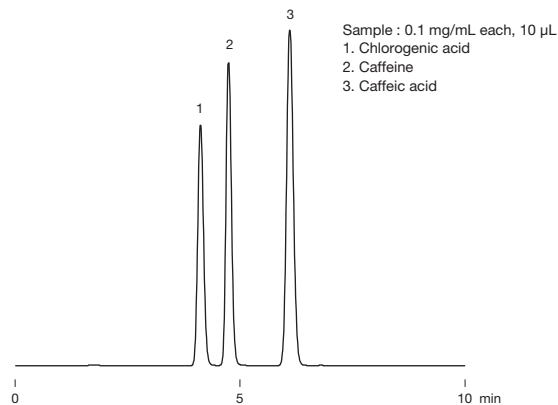
Base Material: Organic/inorganic hybrid silica

## Anticonvulsant



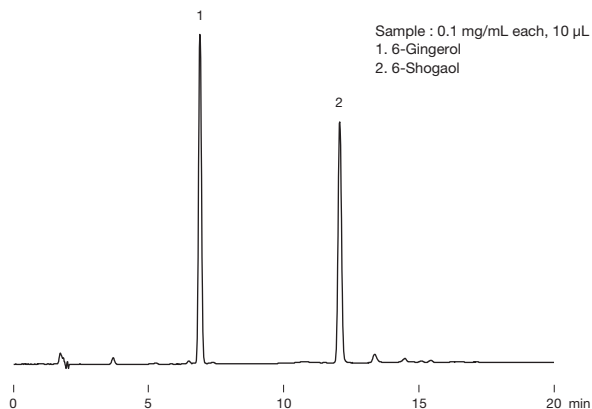
**Column** : Shodex C18-4D  
**Eluent** : 100 mM Phosphate buffer (pH2.1)  
 /CH<sub>3</sub>OH/CH<sub>3</sub>CN = 4/2/1  
**Flow rate** : 1.0 mL/min  
**Detector** : UV (210 nm)  
**Column temp.** : 40 °C

## Chlorogenic acid



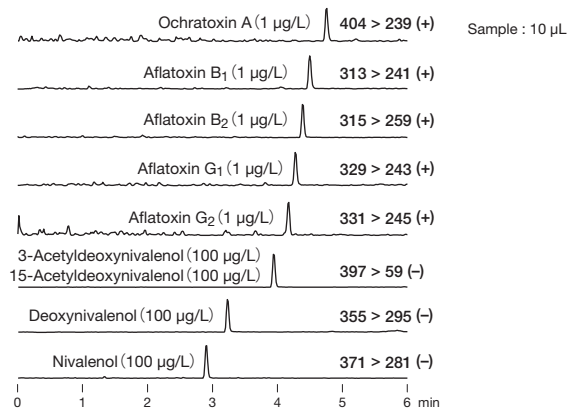
**Column** : Shodex Silica C18M 4D  
**Eluent** : 20 mM H<sub>3</sub>PO<sub>4</sub> aq. /CH<sub>3</sub>OH = 70/30  
**Flow rate** : 1.0 mL/min  
**Detector** : UV (280 nm)  
**Column temp.** : 30 °C

## Gingerol and shogaol



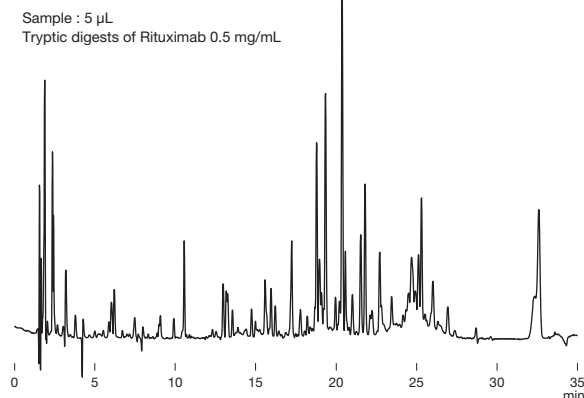
**Column** : Shodex Silica C18M 4D  
**Eluent** : (A); H<sub>2</sub>O/(B); CH<sub>3</sub>CN  
 Linear gradient; 40 B % to 70 B % (15 min)  
**Flow rate** : 1.0 mL/min  
**Detector** : UV (280 nm)  
**Column temp.** : 40 °C

## LC/MS/MS simultaneous analysis of aflatoxins



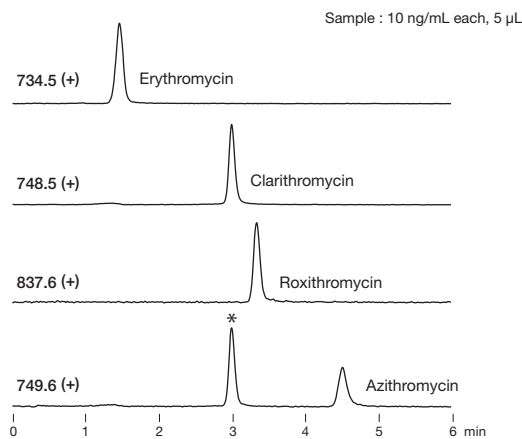
**Column** : Shodex C18U 2B  
**Eluent** : (A); 10 mM CH<sub>3</sub>COONH<sub>4</sub> aq. / (B); CH<sub>3</sub>OH  
 Gradient;  
 0 to 90 B % (0 to 5 min), 90 B % (5 to 7 min), 0 B % (7.01 min),  
 0 B % (7.01 to 10 min)  
**Flow rate** : 0.4 mL/min  
**Detector** : ESI-MS/MS (MRM)  
**Column temp.** : 40 °C

## Tryptic digests of rituximab



**Column** : Shodex C18U 2D  
**Eluent** : (A); 0.1 % TFA in H<sub>2</sub>O/(B); 0.1 % TFA in CH<sub>3</sub>CN  
 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 % NH<sub>3</sub> aq./CH<sub>3</sub>CN = 40/60  
**Flow rate** : 0.4 mL/min  
**Detector** : ESI-MS (SIM)  
**Column temp.** : 40 °C

\*: Clarithromycin containing one <sup>13</sup>C isotope