

## *Euroline*

### ► Eurosil Bioselect



## Eurosil Bioselect – ideal for large molecules

The Eurosil Bioselect stationary phase was specifically developed for the separation of proteins and peptides. Eurosil Bioselect columns are available in 3 modifications, useful for a wide range of separation tasks involving large molecules up to 50 000 Da. Strict manufacturing procedures ensure a very narrow pore size distribution. Interfering anions or heavy metal ions on the silica surface are not present in Eurosil Bioselect columns because only ultra pure silica gel and high quality chemical modifications are employed.

#### Eurosil Bioselect features:

Silica gel:	ultra pure, > 99.99 %
Metal content:	< 10 ppm
Particle size:	3 µm, 5 µm, 10 µm, (15 µm, 20–25 µm upon request)
Particle shape:	spherical
Pore size:	300 Å
Specific surface:	90 ± 5 m <sup>2</sup> /g
Pore volume:	0.8 ml/g
Density:	0.45 ± 0.10 g/l

Eurosil Bioselect columns for HPLC feature a wide-pore (300 Å) stationary phase and were specifically designed to separate large biomolecules, such as proteins and peptides.

- separation of proteins with MW > 10 000 Da
- available as C18, C18A, and C4 bonded phases
- excellent resolution with 3 µm particle size columns
- 3, 5, 10, and 15 µm particle sizes for easy scale-up

### Modifications

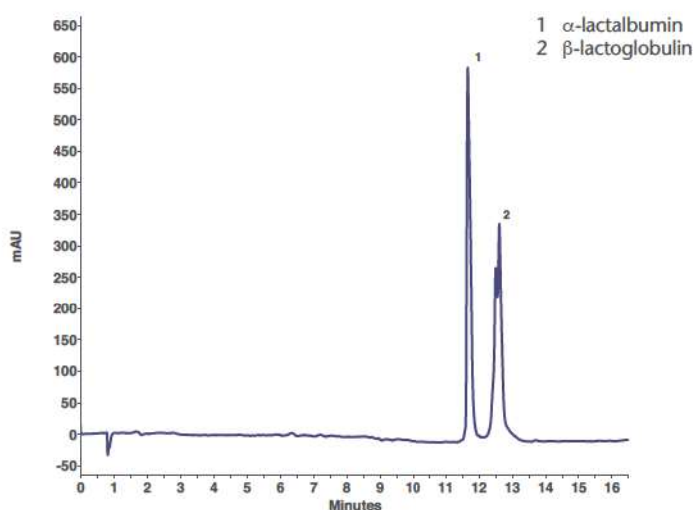
With our focused range of three different surface modifications, the most important applications in reversed phase mode biochromatography are covered. All Eurosil Bioselect modifications offer high chemical stability and high loading capacity. KNAUER's long experience and knowledge in producing HPLC columns ensures you of excellent batch reproducibility.

Modification	USP Code	Application	% Carbon	pH range
C18	L1	hydrophilic biomolecules, peptides, peptide mapping after enzymatic digestion	7.5 % (conventional endcapping)	2–8
C18 A	L1	hydrophilic and polar biomolecules, peptides, very polar biomolecules separated with 100 % aqueous eluents	7 % (conventional endcapping)	2–8
C8	L7	very polar biomolecules such as proteins MW > 10 000 Da	4 %	2–8
C4	L26	biomolecules such as proteins MW > 10 000 Da	2 % (conventional endcapping)	2–8

### Applications

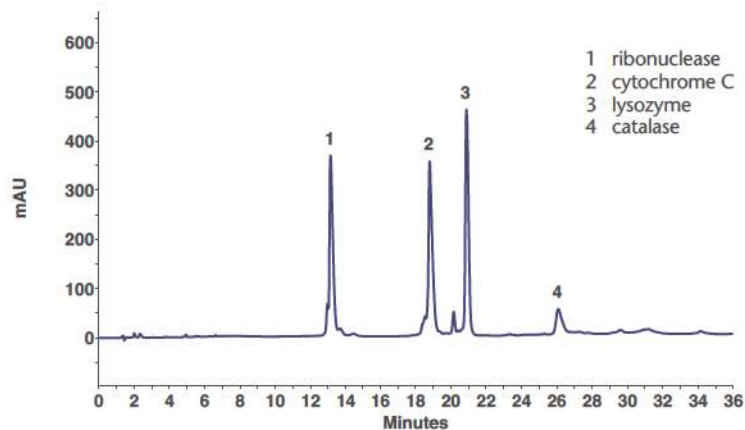
**Eurosil Bioselect** columns are particularly suitable for the separation of hydrophobic substances such as proteins. Very good results can also be obtained for separating oligonucleotides and for peptide mapping after enzyme digestion.

### Separation of $\alpha$ -lactalbumin and $\beta$ -lactoglobulin



Column: Eurosil Bioselect 300-3 C18A, 150 x 2.0 mm (Order No. 15BK184EBG)  
 Mobile phase: A: H<sub>2</sub>O (0.1% TFA)  
 B: 60% ACN (0.1% TFA)  
 Gradient: 0% B–100% B in 15 min (1 min hold)  
 Flow rate: 0.4 ml/min  
 Temperature: 40 °C  
 Detection: UV, 210 nm  
 Injection: 2  $\mu$ l

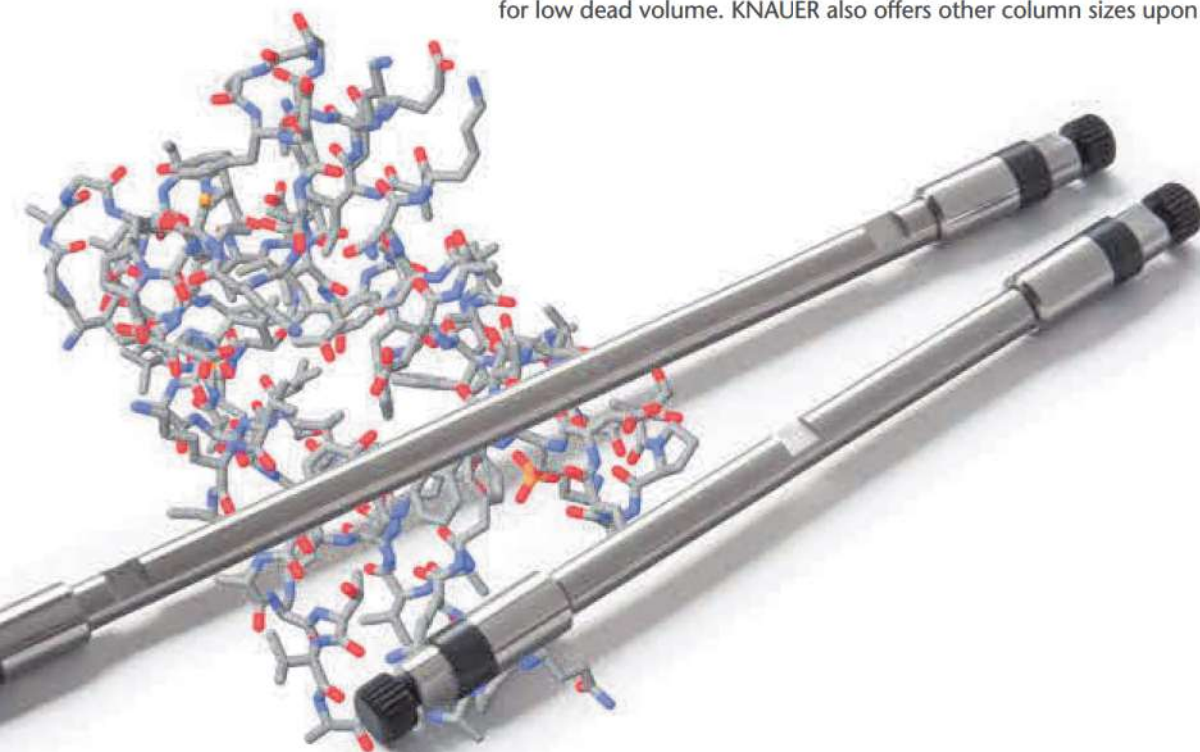
### Separation of an enzyme mixture



Column: Eurosil Bioselect 300-5 C18A, 125 x 4.0 mm (Order No. 12DK184EBJ)  
 Mobile phase: A: H<sub>2</sub>O (0.1% TFA)  
 B: ACN (0.1% TFA)  
 Gradient: 0% B–20% B, 0–5 min  
 20–60% B, 5–40 min (2 min hold)  
 60–80% B, 42–45 min (2 min hold)  
 80–0% B, 47–48 min (4 min hold)  
 Flow rate: 0.8 ml/min  
 Temp: 40 °C  
 Detection: UV, 210 nm  
 Injection: 2 µl

### Column hardware

Eurosil Bioselect columns are manufactured using our Vertex plus technology, our column packing hardware originally designed for demanding UHPLC applications. Featuring a specially treated inner surface for consistent packing and excellent stability, the hardware is also optimized for low dead volume. KNAUER also offers other column sizes upon request.



### Technical support

Aside from telephone technical support, KNAUER offers several different application services. Our method development service can determine the most suitable separation column for your application task, as well as create and optimize separation methods. KNAUER also offers a separation service for preparative separation and purification tasks, including simulated moving bed chromatography.



Contact us to discuss  
your application needs  
[info@knauer.net](mailto:info@knauer.net)

### Ordering information

	Eurosil Bioselect	3 µm	5 µm	10 µm	15 µm
► The last 7 digits of the Order No. comprise the stationary phase.	C18	...K181EBG	...K181EBJ	...K181EBN	...K181EBQ
	C18 A	...K184EBG	...K184EBJ	...K184EBN	...K184EBQ
	C8	...K081EBG	...K081EBJ	...K081EBN	...K081EBQ
	C4	...K041EBG	...K041EBJ	...K041EBN	...K041EBQ

	Analytical columns	2 mm ID	4 mm ID	4.6 mm ID	8 mm ID
► The first 3 digits of the Order No. comprise the column dimensions.	5 mm (precolumn)	P5B...	P5D...	P5D...*	n.a.
	30 mm length	03B...	03D...	03E...	03G...
	50 mm length	05B...	05D...	05E...	n.a.
	100 mm length	10B...	10D...	10E...	n.a.
	125 mm length	12B...	12D...	12E...	n.a.
	150 mm length	15B...	15D...	15E...	n.a.
	250 mm length	25B...	25D...	25E...	25G...
	300 mm length	n.a.	30D...	n.a.	30G...

\*identical to 4 mm precolumn

3 mm ID columns upon request.

All analytical column types from 2 mm ID up to 4.6 mm ID are available with integrated pre-column on request. Preparative columns are available in the range of 16 mm ID up to 62 mm ID.

Technical data are subject to change without notice.

Visit [www.knauer.net](http://www.knauer.net) for details on complete HPLC systems, HPLC columns, and osmometers.

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