

A cyclist wearing a yellow and black jersey and blue shorts is riding a mountain bike on a rocky ledge. In the background, a large, jagged mountain peak with patches of snow rises against a blue sky with scattered white clouds. The foreground shows the texture of the grey rock.

Kromasil®

Kromasil ClassicShell  
Expanding opportunities

Nouryon

# More choices in your analytical tool box

Kromasil ClassicShell family of columns is an expansion of the Kromasil analytical columns portfolio to provide scientists with more options for the analysis of laboratory samples.

## Kromasil ClassicShell columns

The Kromasil ClassicShell columns are based on solid core particles and intended for the analysis of sample mixtures in various areas of research as well as quality control in pharmaceutical, environmental, food and beverages and industrial laboratories.

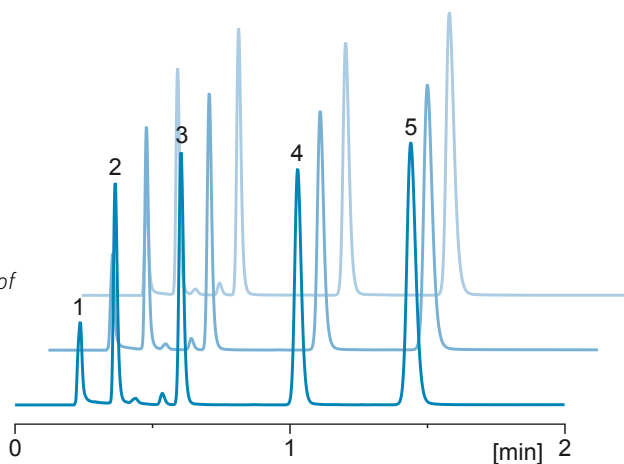
These new columns are packed with 2.5  $\mu\text{m}$  particles and, similarly to the already adopted Kromasil Classic 1.8 and 2.5  $\mu\text{m}$  particle size columns, Kromasil ClassicShell products are intended for fast separations to support effective and efficient laboratory turnaround.



## Reproducible results

QC test with neutral substances.

*Test on three columns with different batches of stationary phase.*



### Conditions

Column: Kromasil ClassicShell-2.5-C18 2.1 x 50 mm

Eluent: acetonitrile / water (70/30)

Flow rate: 0.42 ml/min

Substances: 1 = sodium nitrate, 2 = acetophenone, 3 = toluene, 4 = benzene, 5 = butylbenzen

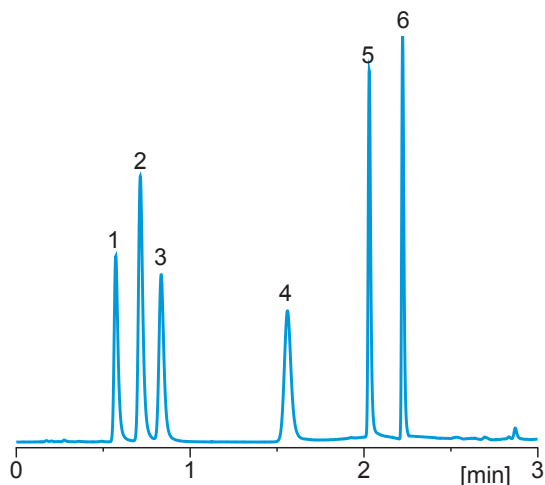
Temperature: 25°C

Detection: UV @ 254 nm

# Applications

Kromasil ClassicShell columns provide an excellent alternative for the analysis of candidate drugs as well as established pharmaceuticals under reversed phase chromatography.

## Sulfa drugs



### Conditions

Column: Kromasil ClassicShell-2.5-C18 2.1 x 50 mm

Eluent: acetonitrile / water / 0.1% formic acid

Gradient: 0 min: 10%, 2 min: 90% acetonitrile

Substances: 1 = sulfadiazine, 2 = sulfathiazole, 3 = sulfamerazine, 4 = sulfamethoxyypyridazine, 5 = sulfamethoxazole, 6 = sulfaquinoxaline

Temperature: 25°C

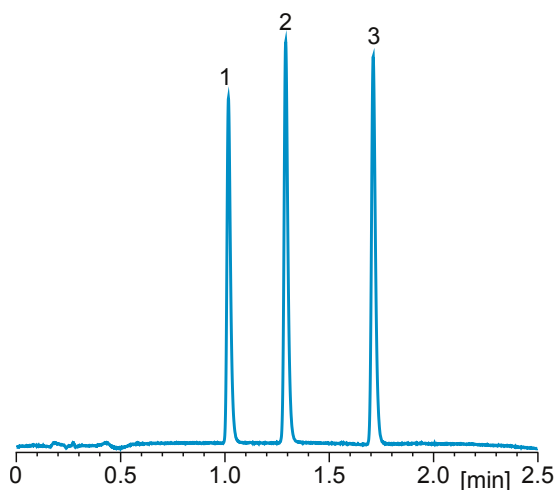
Flow rate: 0.7 ml/min

Detection: UV @ 254 nm

## Analysis of xanthine class compounds

Pharmaceutical drug discovery and development, food quality control and environmental monitoring require efficient sample analysis.

Kromasil ClassicShell columns offer researchers and analysts the possibility of fast runs with complete resolution, as the results illustrated here.



### Conditions

Column: Kromasil ClassicShell-2.5-C18 2.1 x 50 mm

Eluent: acetonitrile / water / 0.1% formic acid

Gradient: 0 min: 3%, 4 min: 30% acetonitrile

Substances: 1 = theobromine, 2 = theophylline, 3 = caffeine

Temperature: ambient

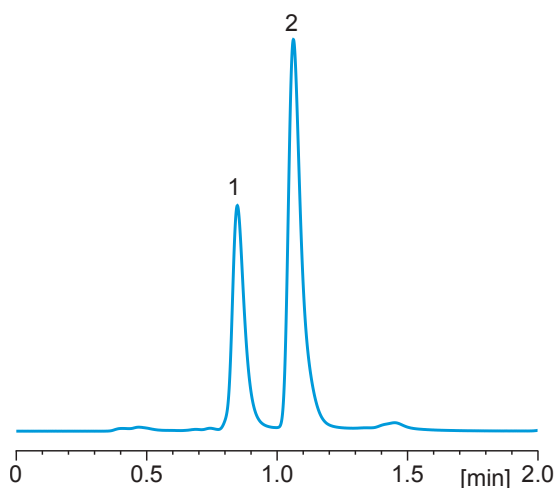
Flow rate: 0.5 ml/min

Detection: UV @ 254 nm

## Separation of capsaicinoids

As the natural products industry continues to grow, the analysis of active ingredients to establish product quality and assure safety is becoming more important.

Here is an example of a fast analysis for the separation of capsaicin and dihydrocapsaicin in slightly over a minute.



### Conditions

Column: Kromasil ClassicShell-2.5-C18 2.1 x 50 mm

Eluent: acetonitrile / water (60/40)

Substances: 1 = capsaicin, 2 = dihydrocapsaicin

Temperature: 25°C

Flow rate: 0.3 ml/min

Detection: UV @ 235 nm

## Availability

Kromasil ClassicShell is based on 2.5 µm solid-core particles, and is available with C8 and C18 derivatizations, in 2.1 and 4.6 mm I.D. HPLC columns. Part numbers are shown in the table below.

Material	Column size (I.D. x length)		
	2.1 x 50 mm	2.1 x 100 mm	4.6 x 100 mm
ClassicShell-2.5-C8	NH2CMD05	NH2CMD10	NH2CMA10
ClassicShell-2.5-C18	NH2CLD05	NH2CLD10	NH2CLA10

The moment you adopt our Kromasil High Performance Concept, you join thousands of chromatographers who share a common goal: to achieve better separations when analyzing or isolating pharmaceuticals or other substances.

Not only will you benefit from our patented silica technology, but you gain a strong partner with a reliable track record in the field of silica products. For the past 70 years, we have pioneered new types of silica. Our long experience in the field of silica chemistry is the secret behind the development of Kromasil, and the success of our Kromasil team. Kromasil is available in bulk and in high-pressure slurry-packed columns.

The production of Kromasil is ISO 9001 and ISO 14001 certified.

Kromasil is a brand of Nouryon, a global specialty chemicals leader. Markets and consumers worldwide rely on our essential solutions to manufacture everyday products. The dedication of more than 9700 employees with a shared commitment to our customers, safety, sustainability and innovation has resulted in a consistently strong performance. We operate in over 80 countries around the world with a portfolio of industry-leading brands.



PUBBclsh\_2201

© Nouryon, 2022

Check [www.kromasil.com/PUBBclsh](http://www.kromasil.com/PUBBclsh) for the latest version

Kromasil® is a registered trademark of Nouryon in a number of territories in the world.