Micro LC and cHiPLC columns

HPLC COLUMNS

eksigent®
part of AB SCIEX

Eksigent chromatography stationary phases

Column	Phase	Particle size Pore Sizes	Applications area
ChromXP-C18-CL ChromXP-C8-CL	C18 bonded phase C8 bonded phase	3 µm, 5 µm 120Å, 300Å	General chromatography, separation of hydrophobic compounds, separation of biomolecules such as proteins and peptides.
ChromXP-C4	C4	3 µm, 5 µm 120Å, 300Å	Separation of large biomolecules like proteins and peptides, both in RP and HIC-mode, excellent stability at pH 1.
ChromXP-C18EP ChromXP-C8EP	C18 embedded polar C8 embedded polar	3 µm, 5 µm 120Å, 300Å	Enhanced polar selectivity and excellent peak shape for acids and bases, wide range of pH, analysis of strong basic compounds in neutral pH.
ChromXP-Phenyl	Phenyl RP, fully end-capped	3 µm 120Å	Alternate enhanced selectivity and hydrophobicity to the C18 and C8 phase. For aromatic, polar and acidic compounds.
ChromXP-C18-AQ	Slightly polar C18, fully end-capped	3 µm 120Å	For polar compounds that require high aqueous mobile phase conditions.
ChromXP-Cyano	Cyano-propyl bonded phase	3 µm 120Å	Used in normal phase mode and reversed phase mode.
ChromXP-Amino	Amino-propyl bonded phase	3 µm 120Å	Used in three modes: non polar mode, reversed phase mode and ion chromatography mode.
ChromXP-Si	Silica bonded phase	3 µm 120Å	Used in normal phase mode for polar analytes.
HALO C18 HALO C8	Fused-core particle	2.7 µm	Excellent performance for a broad range of analyte polarities.
HALO Phenyl Hexyl	Fused-core particle with phenyl-hexyl	2.7 µm	Alternate enhanced selectivity and hydrophobicity to the C18 and C8 phases, for aromatic, polar and acidic compounds, excellent stability even at pH 1.
HALO HILIC	Fused-core particle with unbonded silica	2.7 µm	Enhanced sensitivity and peak shape for LC/MS basic analytes, hydrophilic interaction chromatography provides the selectivity needed for the retention and separation of polar compounds.

High performance and high throughput

Eksigent's microLC and cHiPLC columns are designed to provide robust analytical performance in an easy-to-use format.

Eksigent microLC columns are available in 0.3, 0.5 and 1.0 mm inner diameters (ID), and lengths of 3, 5, 10 and 15 cm. The columns can be used at pressures up to 10,000 psi, and have 1/32" end-fittings specifically designed to prevent dispersion at flow rates as low as 3 µL/min.

Eksigent cHiPLC columns are a unique line of microfluidic chip based columns and traps in 75 µm and 200 µm ID, and lengths of 5 and 15 cm, with the possibility of coupling two columns together in the ekspert™ cHiPLC system to obtain an effective column length of 30 cm. Eksigent chip based columns provide reproducible, high quality separations in nanoLC, with fast, easy column replacement using our Eksport connection system.

All Eksigent columns are available with a wide range of stationary phase chemistries, particle sizes and pore sizes, including superficially porous particles.

Flexible formats

Micro cHiPLC columns

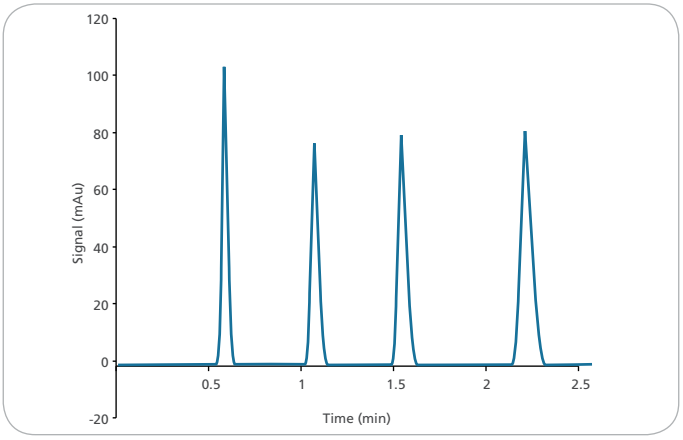
Micro LC columns

Nano cHiPLC columns

Nano LC columns

Performance of columns

Eksigent columns complement the performance, ease of use, and reliability of the ekspert™ microLC 200 and ekspert nanoLC 400 systems. Packed using a process that provides long-term stability, eksigent columns ensure optimum separation, and allow you to realize the full potential of your instrument.

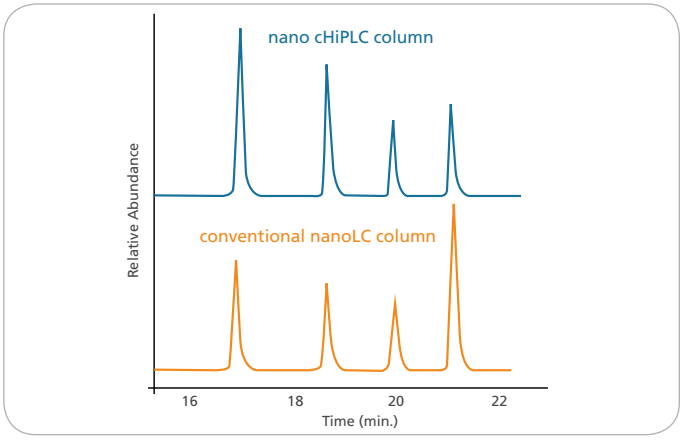


Micro LC columns maintain column efficiency at smaller IDs and provide excellent separation power and peak shape at micro flow rates.

Column: 0.5 x 50 mm
Mobile phase: 70/30 ACN/Water
Isocratic at 11µL/min
Injection volume: 40 nL
Detection: 260nm, 20Hz

1. Uracil
2. Diethyl phthalate
3. Naphthalene
4. Acenaphthene

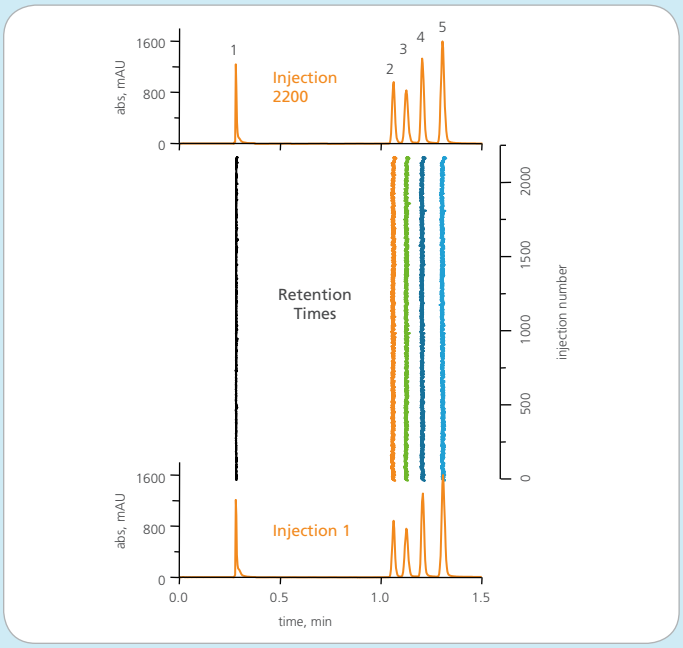
>200,000 plates/m



Comparison of the separation of a peptide test mix on a nano cHiPLC column and a conventional nanoLC column.

Both columns are 15 cm x 75 µm, and packed with ChromXP C18-CL 3 µm 300Å. Flowrate is 250 nl/min; gradient slope 2% ACN/min.

MicroLC column robustness



2,200 injections with no degradation

Column: 3C18-EP-120; 0.3×50 mm
A: water, B: acetonitrile
5–98% B in 60 sec; 10 µL/min
Injection volume: 40 nL
Detection: 260 nm
2200 repetitive injections

Peaks:
1. Uracil
2. Diethyl Phthalate
3. Propyl Paraben
4. Naphthalene
5. Acenaphthene

After 2200 injections, retention time and column back pressure were unchanged.

Retention Time RSDs 0.2-0.3%

Choice of columns for different molecule classes

Whether you are performing conventional or ultra-fast chromatography, separating biomolecules, or analyzing complex basic compounds, Eksigent has a diverse range of stationary phases that meet your needs.

Biomolecules

Proteins
- ChromXP-C4

Peptides
- ChromXP-C18-CL
- ChromXP-C8-CL
- Dr. Maisch Reprosil-C18

Glycans
- HALO HILIC
- Graphitized Carbon

Small molecule (Polar)
- ChromXP-C18-EP
- ChromXP-C8-EP
- ChromXP-C18-AQ
- ChromXP-Cyano
- ChromXP-Amino
- Halo C18
- HALO Phenyl Hexyl
- HALO HILIC

Small molecule (Non polar)
- ChromXP-Phenyl
- ChromXP-Cyano
- ChromXP-Amino
- ChromXP-Si
- Halo C18

LEGEND
- MicroLC column
- Micro cHiPLC column
- Nano cHiPLC column

Your success is our success

We take it personally

As a customer of Eksigent, part of AB SCIEX, you have access to a world-class customer support organization. Wherever you are, we're there with you as a trusted partner to answer questions, provide solutions, and maximize lab productivity.

Our service engineers have the experience and expertise to help you get the most from your Eksigent UHPLC systems. Whether you're looking to improve sensitivity, resolution, speed, or throughput, they can direct you to the right solution.

When you have questions, we have answers.

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