≥3 µm Analytical HPLC Columns

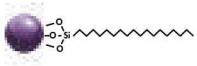
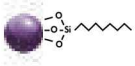
XBridge BEH Columns

XBridge BEH HPLC Columns are designed for one purpose—to maximize productivity. Whether you are creating a quality-control method or developing a leading-edge LC-MS assay, there is an XBridge Column that will fit your separation needs.

- Unique, mobile-phase pH stability, increasing column lifetime
- Remarkable column reliability, ensuring the ruggedness of assays
- Exceptional particle efficiency, providing unmatched peak shape and capacity

With 13 general-purpose, application-specific sorbents and the widest range of particle sizes available, no other HPLC column family offers the tools you need to meet the most demanding chromatographic challenges. Whether you require robust HPLC methods, seamless UPLC transferability, or preparative scaling for product isolation, count on the versatility of an XBridge BEH HPLC Column.

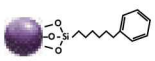
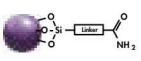
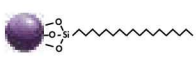
Column Characteristics

	BEH C_{18}, 130 Å	BEH Shield RP18, 130 Å	BEH C_8, 130 Å
	UHPLC: 2.5 µm *XP* HPLC: 3.5, 5, 10 µm	**UHPLC: 2.5 µm *XP* HPLC: 3.5, 5, 10 µm**	**UHPLC: 2.5 µm *XP* HPLC: 3.5, 5, 10 µm**
Ligand Benefit	General purpose, ideally suited for method development due to extreme pH stability and applicability to the broadest range of compound classes.	Alternate selectivity compared to straight chain C_{18}, particularly with phenolic analytes. Compatible with 100% aqueous-phase composition.	General purpose, ideally suited for method development due to extreme pH stability. Applicable to the broadest range of compound classes.
Particle/Ligand			
Ligand Density*	3.1 µmol/m²	3.3 µmol/m²	3.2 µmol/m²
Carbon Load*	18%	17%	13%
Endcapped	Yes	Yes	Yes
USP Class No.	L1	L1	L7
pH Range	1–12	2–11	1–12
Temperature Limits	Low pH = 80 °C, High pH = 60 °C	Low pH = 50 °C, High pH = 45 °C	Low pH = 60 °C, High pH = 60 °C
Surface Area*	185 m²/g	185 m²/g	185 m²/g
Performance Standards	**Neutrals QC** Reference **Material** p/n: 186006360	**Neutrals QC** Reference **Material** p/n: 186006360	**Neutrals QC** Reference **Material** p/n: 186006360
Application Standards	**Reversed-Phase QC** Reference **Material** p/n: 186006363	**Reversed-Phase QC** Reference **Material** p/n: 186006363	**Reversed-Phase QC** Reference **Material** p/n: 186006363

*Expected or approximate value.

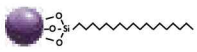
BEH Technology is also available in UPLC particle sizes (ACQUITY UPLC BEH 1.7 µm), please refer to page 117.

Column Characteristics *Continued*

	BEH Phenyl, 130 Å	BEH HILIC, 130 Å	BEH Amide, 130 Å	Glycan BEH Amide, 130 Å	Peptide BEH C_{18}, 130 Å
	UHPLC: 2.5 µm *XP* HPLC: 3.5, 5 µm	**UHPLC: 2.5 µm *XP* HPLC: 3.5 µm**	**UHPLC: 2.5 µm *XP* HPLC: 3.5 µm**	**UHPLC: 2.5 µm *XP* HPLC: 3.5 µm**	**HPLC: 3.5, 5, 10 µm**
Ligand Benefit	Excellent for method development and offers a unique level of pH stability. Provides alternate selectivity, particularly in regard to polyaromatic compounds.	Excellent for retention of very polar, basic, water soluble analytes. Excellent for mobile phases containing high concentrations of organic solvent.	Good to separate a wide range of very polar compounds, particularly good at separating carbohydrates (saccharides) using high concentrations of organic modifier, elevated temperature, and high pH.	Retention of polar acidic glycans.	High pH and temperature stable. Provides high peptide retention.
Particle/Ligand					
Ligand Density*	3.0 µmol/m²	N/A	7.5 µmol/m²	7.5 µmol/m²	3.1 µmol/m²
Carbon Load*	15%	Unbonded	12%	12%	18%
Endcapped	Yes	Yes	No	No	Yes
USP Class No.	L11	L3	L68	L68	L1
pH Range	1–12	1–9	2–11	2–11	1–12
Temperature Limits	Low pH = 80 °C, High pH = 60 °C	Low pH = 45 °C, High pH = 45 °C	Low pH = 90 °C, High pH = 90 °C	Low pH = 90 °C, High pH = 90 °C	Low pH = 80 °C, High pH = 60 °C
Surface Area*	185 m²/g	185 m²/g	185 m²/g	185 m²/g	185 m²/g
Performance Standards	**Neutrals QC** Reference **Material** p/n: 186006360	**HILIC QC** Reference **Material** p/n: 186007226	**HILIC QC** Reference **Material** p/n: 186007226	**Glycan Performance Test Standard** p/n: 186006349	**Cytochrome *c* Digestion Standard** p/n: 186006371
Application Standards	**Reversed-Phase QC** Reference **Material** p/n: 186006363	**HILIC QC** Reference **Material** p/n: 186007226	**HILIC QC** Reference **Material** p/n: 186007226	**Glycan Performance Test Standard** p/n: 186006349 **Dextran Calibration Standard** p/n: 186006841	**Peptide Retention Standard** p/n: 186006555

*Expected or approximate value.

BEH Technology is also available in UPLC particle sizes (ACQUITY UPLC BEH 1.7 µm), please refer to page 117.

Oligonucleotide BEH C_{18}, 130 Å	Protein BEH C_4, 300 Å	Protein BEH SEC, 125 Å	Protein BEH SEC, 200 Å	Protein BEH SEC, 450 Å
HPLC: 2.5 µm	**HPLC: 3.5, 5, 10 µm**	**HPLC: 3.5 µm**	**HPLC: 3.5 µm**	**HPLC: 3.5 µm**
High pH and temperature stable. Great separations for oligonucleotides (<45 mers).	High pH and temperature stable. The go-to option for intact proteins.	Helps to minimize secondary interactions in size exclusion mode. For use in fragment, monomer and aggregate analysis. Best for separations of proteins or peptides sized 1 kD - 80 kD.	Helps to minimize secondary interactions in size exclusion mode. For use in fragment, monomer and aggregate analysis. Best for separations of proteins sized 10 kD – 450 kD.	Helps to minimize secondary interactions in size exclusion mode. For use in fragment, monomer and aggregate analysis. Best for separations of proteins sized 100 kD – 1.5 million daltons.
				
3.1 µmol/m²	2.4 µmol/m²	4.9 µmol/m²	5.5 µmol/m²	4.8 µmol/m²
18%	8%	15%	12%	9%
Yes	No	No	No	No
L1	L26	L33	L33	L33
1–12	1–10	1–8	1–8	1–8
Low pH = 80 ˚C, High pH = 60 ˚C	Low pH = 80 ˚C, High pH = 50 ˚C	Low pH = 60 ˚C, High pH = 60 ˚C	Low pH = 60 ˚C, High pH = 60 ˚C	Low pH = 60 ˚C, High pH = 60 ˚C
90 m²/g	90 m²/g	395 m²/g	220 m²/g	80 m²/g
MassPREP OST Standard p/n: 186004135	**MassPREP Protein Standard Mix** p/n: 186004900	**BEH125 Protein Standard Mix** p/n: 186006519	**BEH200 SEC Protein Standard Mix** p/n: 186006518	**BEH450 SEC Protein Standard Mix** p/n: 186006842
MassPREP OST Standard p/n: 186004135	**MassPREP Protein Standard Mix** p/n: 186004900	**BEH125 Protein Standard Mix** p/n: 186006519	**BEH200 SEC Protein Standard Mix** p/n: 186006518	**BEH450 SEC Protein Standard Mix** p/n: 186006842