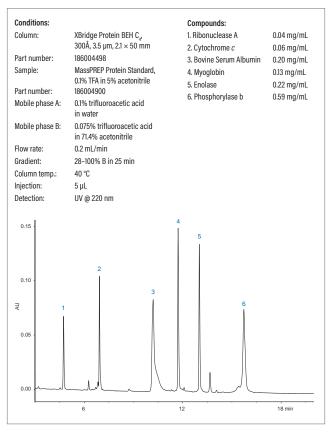
## PROTEIN BEH C<sub>4</sub>, 300Å COLUMNS

Analyzing and characterizing protein samples requires the detection of small chemical differences between large molecules. Most often, such analyses have relied on an array of analytical techniques, each sensitive to a different property of the protein. Reversed-phase HPLC has not been fully exploited in these tests. The separation of proteins often yields relatively broad, asymmetrical peaks with poor recovery and significant carryover. To address these unsatisfactory results, we designed our reversed-phase, Ethylene-bridged Hybrid (BEH Technology) Protein Separation Technology Columns specifically for the high-resolution analysis of proteins.

Our family of Protein BEH C<sub>4</sub>, 300Å Columns for protein separations offer these benefits:

- They separate proteins of various sizes, hydrophobicities, and isoelectric points
- They maximize recovery and minimize protein carryover, owing to unique chemistries
- They tolerate extreme pH and temperature
- They address instrumentation and application needs (HPLC/UHPLC 3.5 µm column and UPLC 1.7 µm column)
- They are available, as preparative columns, in 5 and 10 μm particle sizes
- They are quality-control tested with MassPREP Protein Standard Mix (p/n: 186004900)
- They are compatible for use with ESI-MS, for protein identification

## 300Å C<sub>4</sub> Columns Developed for Protein Chromatography



Protein BEH  $C_4$  300Å Columns can be used with proteins of wide-ranging properties. This protein mix was chosen to represent a range of isoelectric points, molecular weights, and hydrophobicities.



## Batch-to-Batch Reproducibility

Conditions:	Compounds:
Column:	ACQUITY UPLC Protein BEH C <sub>4</sub> , 1. Ribonuclease
	300Å, 1.7 μm, 2.1 × 50 mm 2. Cytochrome <i>c</i>
Part number:	186004495 3. BSA
Sample:	MassPREP Protein Standard, 4. Myoglobin
	0.1% TFA in 5% acetonitrile 5. Enolase
Part number:	186004900 6. Phosphorylase b
Eluent A:	0.1% trifluoroacetic acid in 100% HPLC grade water
Eluent B:	0.075% trifluoroacetic acid in
	71.4% acetonitrile
Flow rate:	0.2 mL/min
Gradient:	28-100% B in 25 min
Column temp.:	40 °C
Detection:	UV @ 220 nm
	5 4 6 Batch A
	Batch B
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L	Batch C
	4 6 8 10 12 14 16 18 20 22 mi

We use the MassPREP Protein Standard Mixture to quality-control test ACQUITY UPLC Protein BEH C<sub>4</sub> 300Å Columns. The mixture helps ensure consistent batch-to-batch and column-to-column performance.

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