Penicillin-binding proteins
Improved separation of hydrophobic penicillin-binding proteins

Application Note

BioPharma

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Introduction
An important result is that Agilent Polaris gives baseline resolution among many penicillin peaks which had not been achieved with prior studies with C18 columns. Baseline resolution was seen with C4 columns, but the columns were usable for only a few cycles even if protein clean-up and prophylaxis with TFE was used. The TFE treatment applied to Polaris allowed it to be used for dozens of cycles.
**Conditions**

- **Column**: Agilent Polaris C18-A, 4.6 x 150 mm, 5 µm  
  Part Nr.: A2000150X046
- **Eluent**: A: MeCN + 0.1% TFA B: 0.1% TFA
- **Gradient**: 10 - 100% A in 60 min
- **Flow**: 1.0 mL/min
- **Detection**: UV @ 280 nm and 320 nm.
- **Sample**: Cyanogen (C,N₂) treated penicillin binding proteins from *Bacillus subtilis*

**Courtesy**: M.J. Simon and R.A. Day, Department of Chemistry, University of Cincinnati, Cincinnati, OH