

Small Molecule Pharmaceutical Analysis Using Base Deactivated Reversed Phase Chromatography

Eprogen's MICRA HPLC columns are designed and manufactured for the analysis and purification of proteins, peptides, polymers, basic and acidic molecules, as well as pharmaceutical compounds.

Eprogen's MICRA HPLC columns are individually tested to ensure premium quality and are based on pure, highly spherical, porous and non-porous silica supports. These columns utilize the classic SynChropak® bonding chemistries to deliver excellent resolution, stability, and reproducibility. Column sizes include 1-30mm I.D. and 50-300mm in length. Particle sizes are available in 1.5 to 10 μ and pore sizes range from 50-4000 Å.

Featured Column:

MICRA-Gold SCD100
(250 X 4.6 mm I.D.)
Order No. SCD100-25

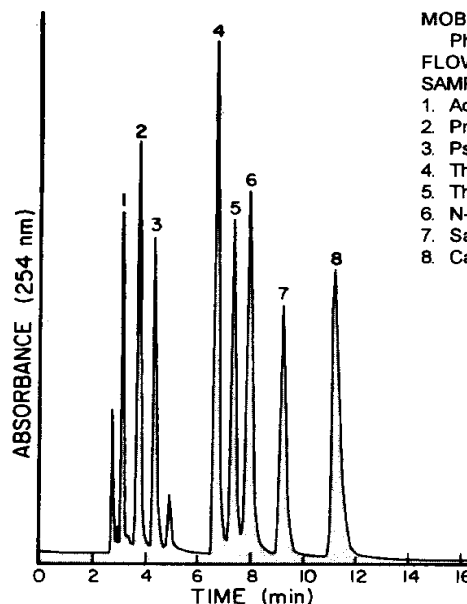
MICRA-Gold SCD100

- No silanol suppressing additives
- Unique Selectivity "Short Chain"
- Suitable for basic, mildly acidic, and neutral molecules
- Excellent Stability
- High Resolution

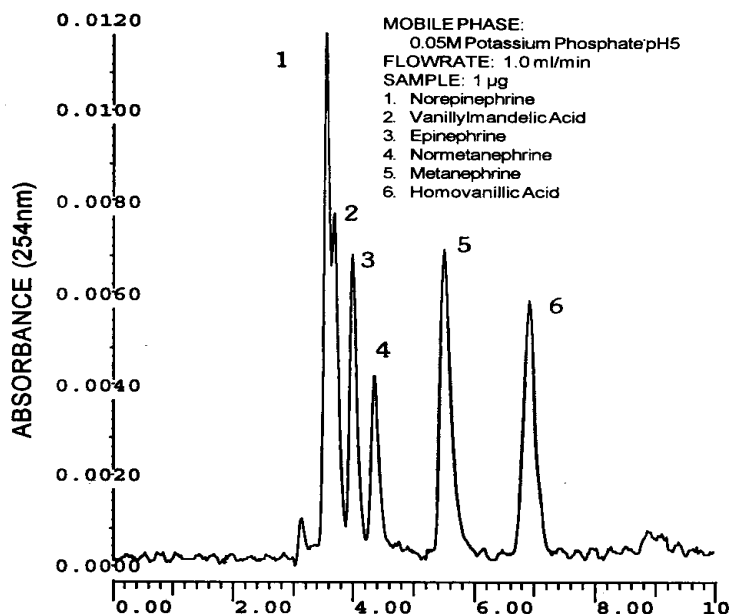
MICRA-Gold SCD100 is a 100 Å, 5 μ , short chain reversed phase support based on SynChropak® bonding chemistry. It is treated with a proprietary silanol deactivation process which generally eliminates the need for silanol suppressing additives.

Basic drugs can be analyzed with excellent resolution and minimal tailing in standard phosphate/methanol mobile phases as illustrated in the figures to the right.

Drug Mixture



Catecholamines



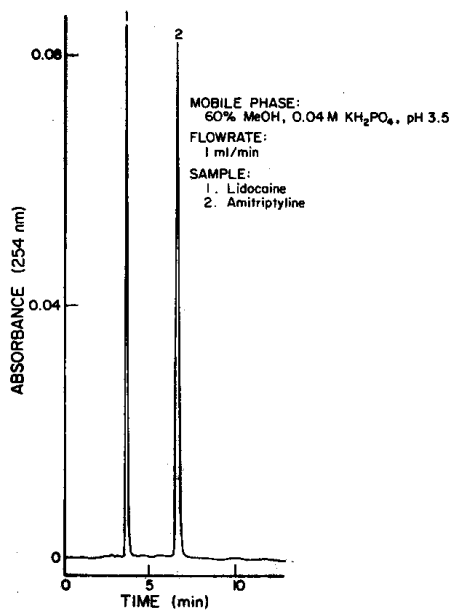
- **Drugs**
- **Organic Acids**
- **Catecholamines**
- **Vitamins**

Short Chain - Excellent Resolution

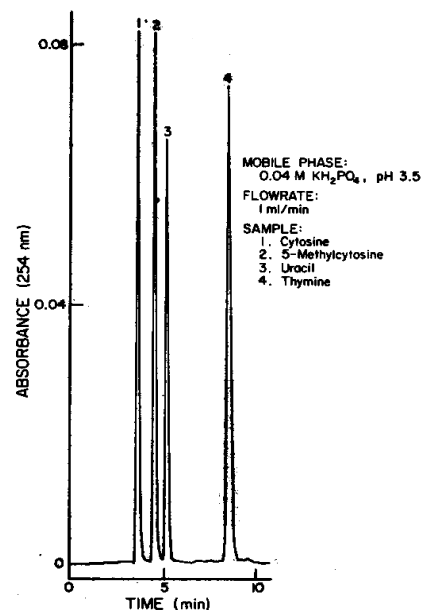
The short chain of SynChropak SCD provides a special selectivity which is complementary to that of C-18 (1). Excellent separations can be obtained for basic drugs.

In the separation of Pyrimidines, illustrated below, a unique selectivity is demonstrated which allows two compounds to be eluted before Uracil. Uracil is often used as a solvent front marker.

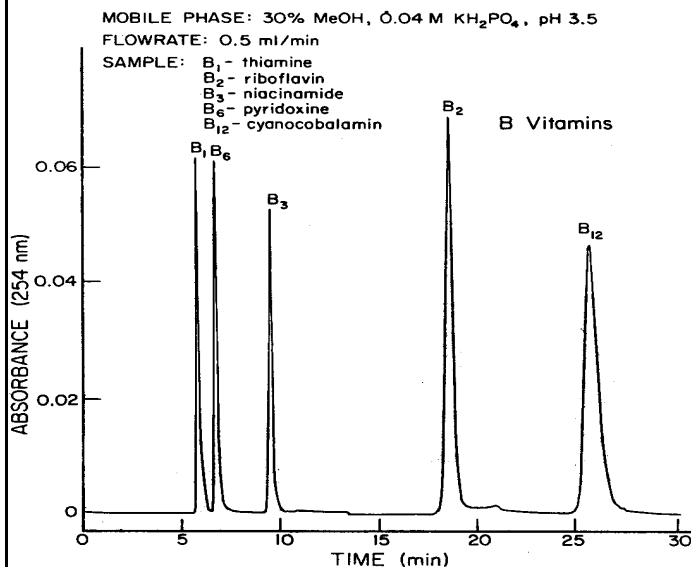
Antiarrhythmics & Antidepressants



Pyrimidines



B Vitamins



References:

(1) H.H. Freiser, M.P. Nowlan and D.L. Gooding, Reversed phase high-performance liquid chromatography of basic drugs on a silanol deactivated support, *J. Liq. Chromatogr.*, 12(5) 827-844 (1989).

M. Bogusz, M. Erkens, R.D. Maier and I. Schroder, Applicability of reversed-phase base-deactivated columns for systematic toxicological analysis, *J. Liq. Chromatogr.*, 15(1) 127-150 (1992).

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