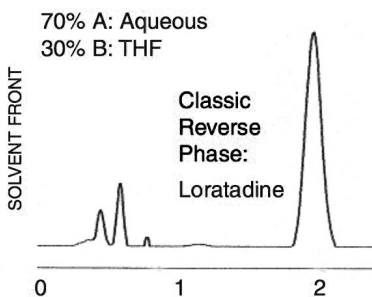


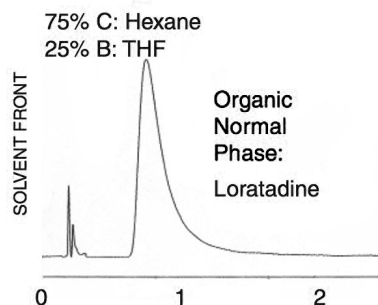
A Generic Method Development Strategy

Choose polarity or functionality as the main selectivity factor on the same column

Chromatogram A:



Chromatogram B:



Method Conditions

Column: Cogent Bidentate C18™, 4µm, 100Å

Catalog No.: 40018-7.5R

Dimensions: 75 x 4.6 mm

Mobile Phase: A. Aqueous (0.1% TFA)

B. THF

C. Hexane

Flow rate: 1 mL/min

Detection: UV 255 nm

Discussion

Chromatogram A ARP - Reverse Phase: Loratadine in 100% THF elutes with the solvent front. With 70% Aqueous/ 30% THF, the selectivity for this compound is classic reverse phase; based on polarity.

Chromatogram B ONP - Normal Phase: At 75% Hexane/ 25% THF on this Cogent Bidentate-C18 column, the selectivity for Loratadine is based on functionality.

Implications

Different selectivity based on polarity or functionality can be chosen with the same HPLC column (Cogent Bidentate-C18).

Advantages

Cogent Bidentate-C18 columns do not suffer from the normal difficulties experienced with traditional HPLC Columns such as Cyano, Pentafluorophenyl (F5) or Amino, when converting from Aqueous to Organic mobile phases and back again; continual conversions do not damage or alter the Cogent Bidentate-C18 columns.

Notes: These method strategies have many uses:

1. Orthogonal Peak Identification
2. Organic Normal Phase separations on a C18 phase to achieve separations that are not possible without using ion-pair reagents in Reverse Phase.
3. Single Column to scout for optimal methods in both Normal and Reverse Phase mode.
4. ARP/ANP - Analytical Chromatography.
5. ONP - Preparative Chromatography.