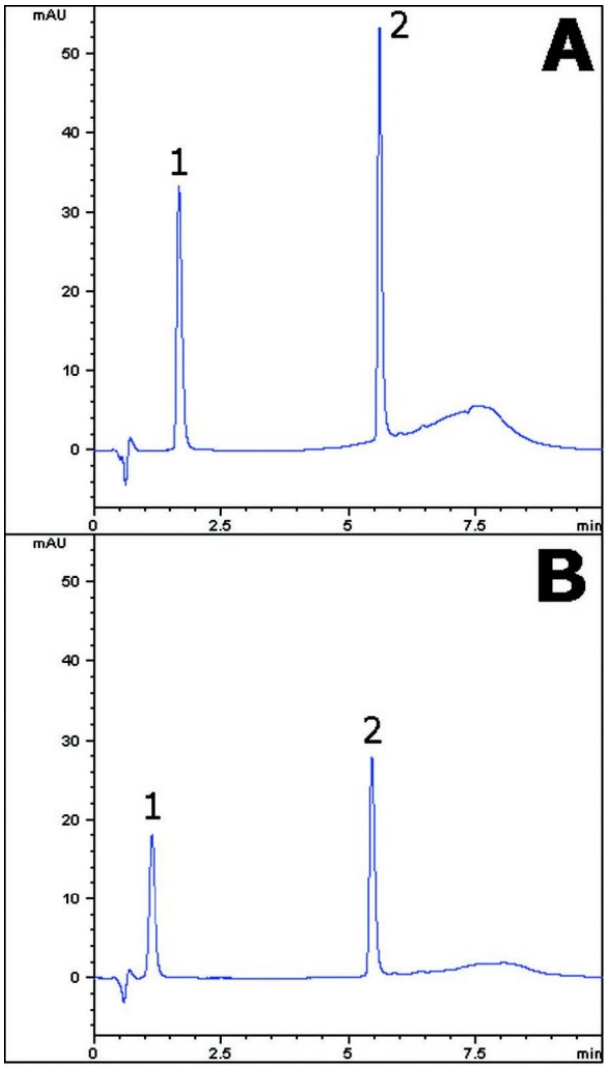
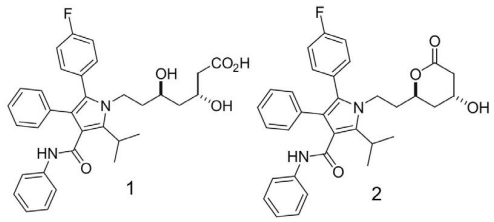
Atorvastatin HPLC Method Transfer to UHPLC – AppNote

Transfer to “near-UHPLC” 2.2um Column, for the API Atorvastatin

This Application Note demonstrates how data obtained on a 4µm Cogent Bidentate C18 Column (*Figure B*) can be adapted for a 2.2µm Column (*Figure A*). The retention times of both analytes are very comparable in each figure. This Method produces excellent Separation of the API and its main acid degradant and is LCMS compatible which can be used in clinical applications involving plasma samples.





Peaks:

1. Atorvastatin
2. Atorvastatin Lactone

Method Conditions

Columns:

Figure A: Cogent Bidentate C18 2.o™, 2.2µm, 120Å

Figure B: Cogent Bidentate C18™, 4µm, 100Å

Catalog Nos.:

Figure A: 40218-05P-2

Figure B: 40018-05P-2

Column Dimensions: 2.1 x 50mm

Mobile Phases:

A: DI Water / 10mM Ammonium Acetate

B: 90:10 Acetonitrile / DI Water / 10mM Ammonium Acetate

Gradients:

Time *(minutes)*	%B
0	40
1	100
6	100
7	40

Flow rates: 0.3mL / minute

Detection: UV @ 248nm

Sample Preparation: 40mg strength Lipitor® tablet (Atorvastatin) was ground and added to a 50mL volumetric flask with a portion of Solvent B diluent. The solution was sonicated 10 minutes and diluted to mark with Solvent B. It was then filtered through a 0.45µm Nylon Syringe Filter (MicroSolv Tech Corp.). The filtrate was diluted 4x in a diluent of 50:50 Solvent B / 1N HCL. It was heated in a dry bath for 10 minutes at 85°C.

Attachment

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Date: 03-05-2024