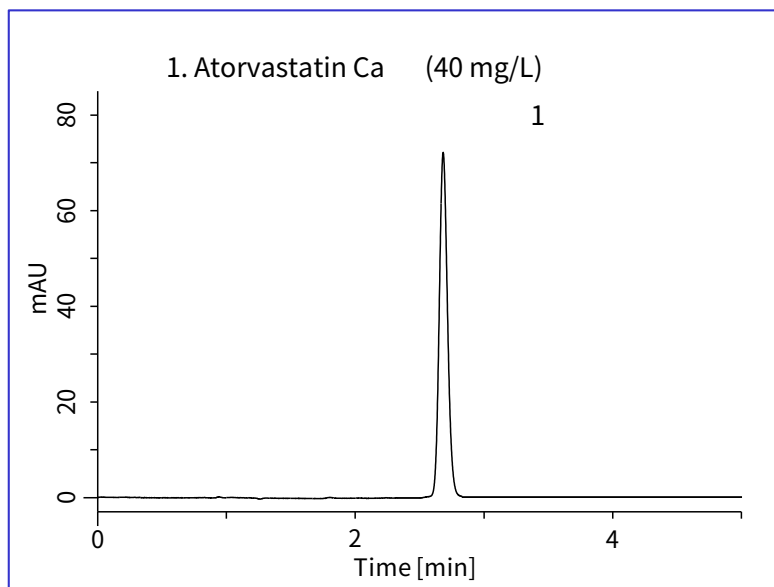


Atorvastatin is one of the drug class known as statins. This kind of drugs are used for lowering cholesterol concentration in blood because statins inhibit HMG-CoA reductase, which are known to play an important role in production of cholesterol in liver tissue.

Among the members of statins, atorvastatin is prescribed very frequently. In this note, a determination method for atorvastatin is described. Using Inertsil C8-4, sharp peak was obtained from tablet samples as well as standard solution.

### A chromatogram obtained from standard solution

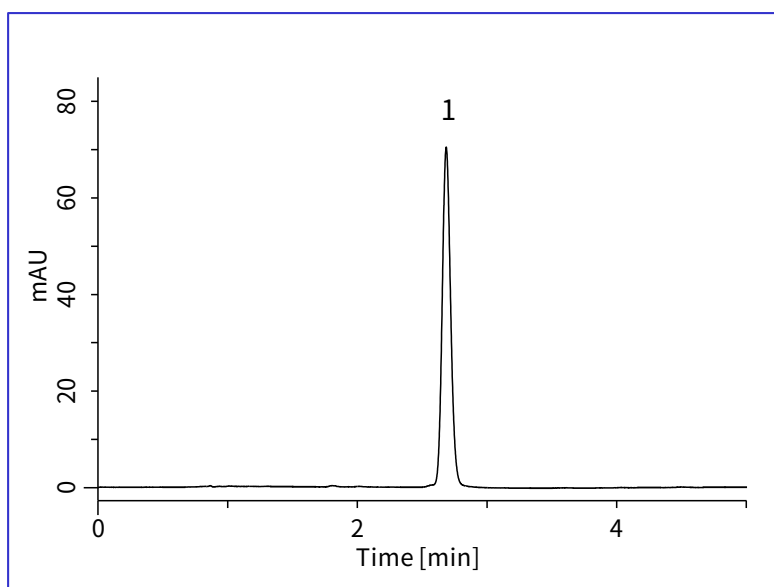


### HPLC Conditions

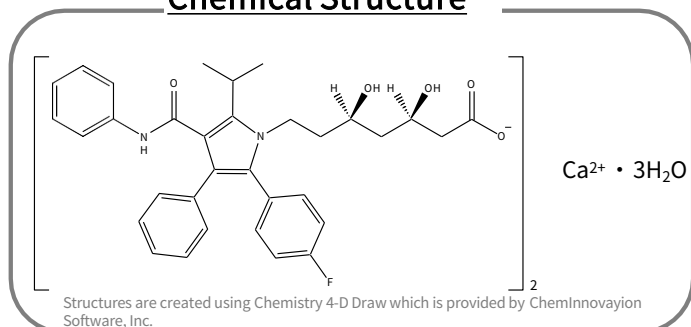
<b>Column</b>	: Inertsil C8-4 HP (3 $\mu$ m, 100 x 4.6 mm I.D.)
<b>Column Cat. No.</b>	: 5020-14057
<b>Eluent</b>	: A) CH <sub>3</sub> CN B) 50 mM CH <sub>3</sub> COONH <sub>4</sub> (pH 5.0, CH <sub>3</sub> COOH) A/B = 50/50, v/v
<b>Flow rate</b>	: 1.0 mL/min
<b>Col. Temp.</b>	: 25°C
<b>Detection</b>	: UV 240nm
<b>Injection Vol.</b>	: 5 $\mu$ L

### A chromatogram obtained from tablet sample

The sample concentration was adjusted to 40 mg/L as atorvastatin.



### Chemical Structure



### A Sample Pretreatment Method for Tablet Sample

#### Sample

- Grind tablet into powder
- Weigh the powder equivalent to 40 mg of atrovastatin

#### Extraction

- Add 80 mL of mobile phase
- Sonication extraction for 5 min
- Make up to 100 mL with mobile phase

#### Filtration

- 0.45  $\mu$ m membrane filter

#### Dilution

- 10-fold dilution with mobile phase

#### HPLC

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