

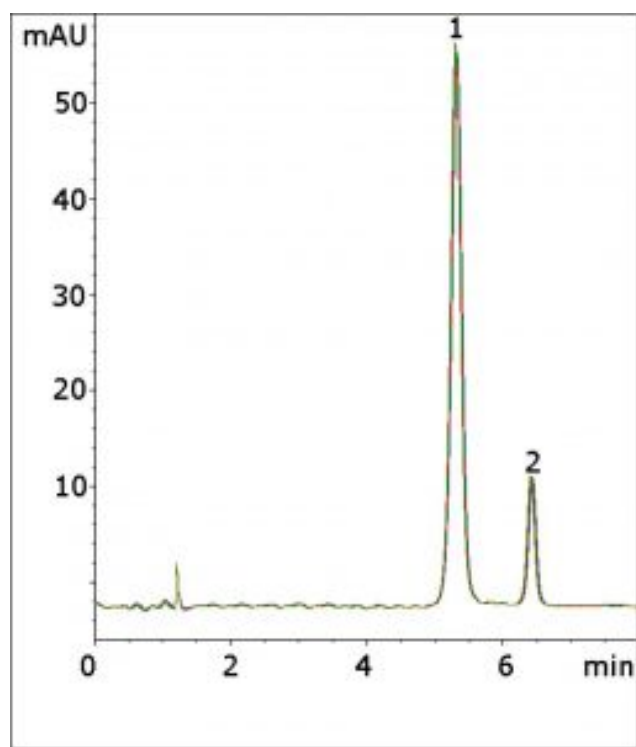
## Cefprozil E & Z Isomers Analyzed with HPLC - AppNote

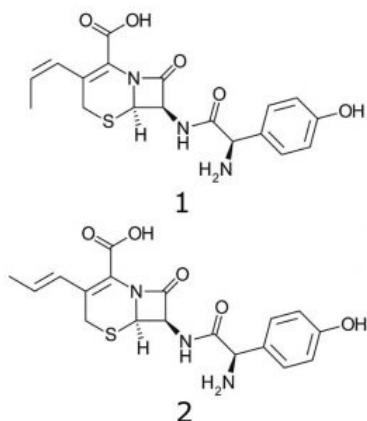
### LCMS Compatible Method

Click [HERE](#) for Column Ordering Information.

The USP Assay Method for Cefprozil uses a phosphate-based Mobile Phase, which is not compatible with LCMS. In this Method, only Formic Acid is needed in the Mobile Phase. The Method meets the isomer resolution criterion of not less than 2.5 with an average calculated value of 4.4. The tailing factor was 1.0, which is within the USP acceptable range of 0.9-1.1.

Finally, the calculated efficiency was 5600 theoretical plates, which exceeds the requirement of not less than 2500. The excellent repeatability of the figure overlay illustrates the Method durability and fast Gradient equilibration.





### Peaks:

1. Cefprozil (Z-isomer)
2. Cefprozil (E-isomer)

### Method Conditions

**Column:** Cogent Phenyl Hydride™, 4μm, 100Å

**Catalog No.:** 69020-7.5P

**Dimensions:** 4.6 x 75mm

#### Mobile Phase:

A: DI Water / 0.1% Formic Acid

B: Acetonitrile / 0.1% Formic Acid

#### Gradient:

Time (minutes)	%B
0	5
6	20
7	5

**Temperature:** 45°C

**Post Time:** 1 minutes

**Flow rate:** 1.0mL / minute

**Detection:** UV @ 280nm

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**Injection vol.:** 20 $\mu$ L

**Sample Preparation:**

*Stock Solution:* 500 mg strength Cefprozil tablet was ground with a mortar and pestle. The ground tablet was added to a 100mL volumetric flask with 50mL 50:50 Solvent A / Solvent B diluent. The flask was sonicated 10 minutes, diluted to mark with the diluent, and filtered.

*Working Solution:* A 100 $\mu$ L aliquot of the stock was diluted with 900 $\mu$ L of the diluent.

**t<sub>0</sub>:** 0.9 minutes

**Note:** Cefprozil is a cephalosporin antibiotic used to treat conditions such as bronchitis and infections of the ear, skin, throat, and sinuses.



**Attachment**

**No 158 Cefprozil E & Z Isomers with HPLC pdf** 0.3 Mb [Download File](#)