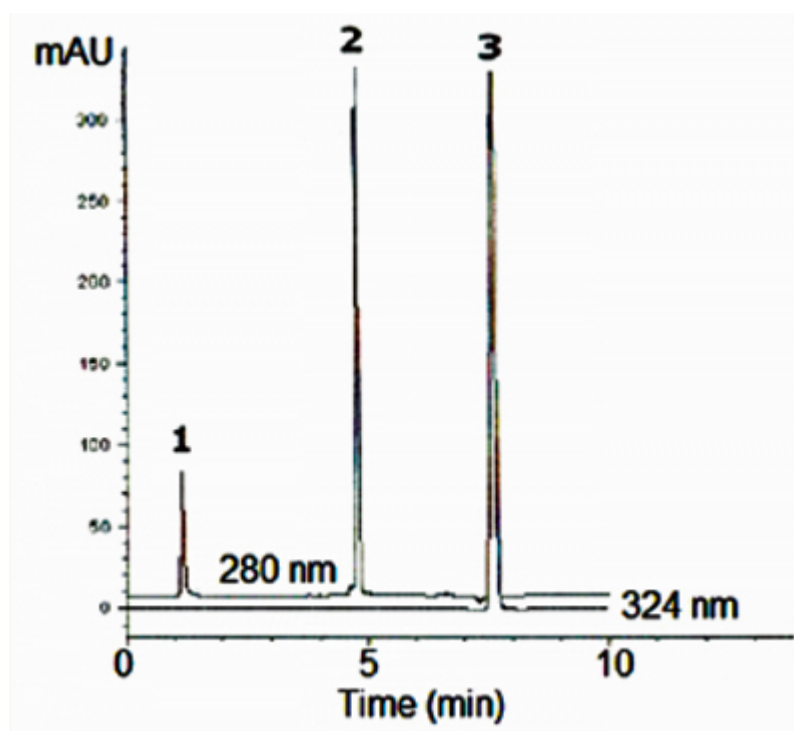


## Acetaminophen Impurities Method with HPLC - AppNote

### Acetaminophen - Alternate USP Method

Acetaminophen and two of its major impurities were analyzed using a simple Mobile Phase. The Peak Shapes are very good and the Repeatability was good (%RSD = 0.01).



× Peaks:

1. 4-Aminophenol 1.072 minutes
2. Acetaminophen 4.668 minutes
3. 4-nitrophenol 7.588 minutes

### Method Conditions:

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

**Catalog No.:** 40018-75P

**Dimensions:** 4.6 x 75mm

**Mobile Phase:**

A: DI Water with 0.1% Formic Acid

B: Acetonitrile with 0.1% Formic Acid

**Gradient:**

Time (minutes)	%B
0	0
1	0
4	30
6	30
6.01	10



10

10

**Post Time:** 3 minutes**Injection Volume:** 5µL**Flow Rate:** 1.0mL / minute**Detection:** UV

280 nm (4-aminophenol, acetaminophen)

324 nm (4-nitrophenol)

**Sample Preparation:** The stock solution was prepared by dissolving 1.0mg of standards in 10.00mL of the Mobile Phase (50:50 Solvent A / Solvent B). The Solution was then filtered with a 0.45µm Nylon Syringe Filter (MicroSolv Tech Corp.). The injection sample was diluted 1:10.

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

**Note:** Acetaminophen (n-acetyl-p- aminophenol, APAP) is a non-steroid anti- inflammatory drug. There are several impurities that can be present in a final drug (depending on the synthetic route, the quality of starting materials, reagents, etc.) which can have safety implications. Analytical methods are needed to detect and identify these impurities and quantify them.



## Attachment

**No 249 Acetaminophen Impurities Method with HPLC pdf** 0.3 Mb [Download File](#)

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