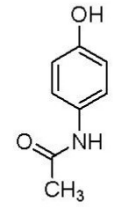
Acetaminophen

Drug Substance by HPLC



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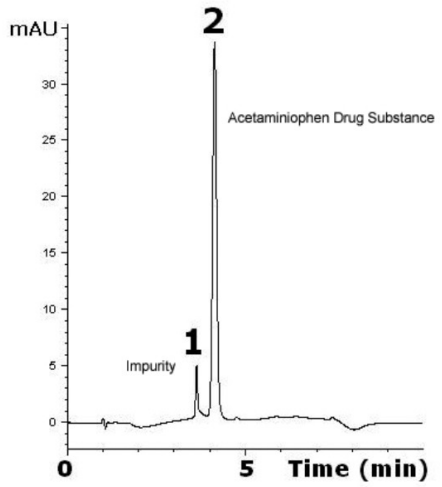

Notes: Acetaminophen (n-acetyl-p-aminophenol, APAP) is an anti-inflammatory valuable drug (non- steroidal). The drug is widely used for the management of pain and fever. Safety concerns require analyzing the composition of the pharmaceutical formulations. The proposed method can be used for the routine quality control of acetaminophen.

Method Conditions

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

Catalog No.: 40018-75P

Dimensions: 4.6 x 75 mm

Mobile Phase: A: DI H_2O/ 0.1% acetic acid/ 0.005% TFA
B: 100% Acetonitrile/ 0.1% acetic acid/ 0.005% TFA

Gradient:

time (min.)	%B
0	0
1	0
4	30
6	30
6.01	0
10	0

Injection vol.: 2µL

Flow rate: 1 mL/min

Detection: UV 254 nm

Sample: 1 mg of the compound dissolved in 1 mL of 50%A/ 50%B solution. Sample for injection diluted 1:15 with 100%A

Peaks: 1. Impurity
2. Acetaminophen

Discussion

A high-performance liquid chromatography (RP-HPLC) method has been developed for determination of acetaminophen: drug substance. The chromatographic separation was achieved on a Cogent Bidentate C-18 column using a gradient elution. The method shown her has excellent stability and reproducibility (RT of acetaminophen for 5 consecutive injections were; 4.122, 4.122, 4.121, 4.119, 4.121 min : 0.03% RSD).

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