

Acetaminophen & Impurity Analyzed with HPLC - AppNote

APAP Drug Substance Analysis with HPLC

This Method has been developed for determination of Acetaminophen as a Drug Substance. The Separation was achieved on a C18 Column using Gradient Elution. The Method shown here has excellent Reproducibility of Acetaminophen for 5 consecutive Chromatograms shown had 0.03% RSD. This could be used for Quality Control of Acetaminophen.



Peaks:

Impurity
Acetaminophen

Method Conditions

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

Catalog No.: 40018-75P

Dimensions: 4.6 x 75mm

Mobile Phase:

A: DI Water / 0.1% Acetic Acid / 0.005% Trifluoroacetic Acid (TFA)

B: 100% Acetonitrile / 0.1% Acetic Acid / 0.005% Trifluoroacetic Acid (TFA)

Gradient:

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

Injection vol.: 2µL

Flow rate: 1mL / minute

Detection: UV @ 254nm

Sample Preparation: 1mg of the Compound was dissolved in 1mL of 50:50 Solvent A / Solvent B solution. *Sample for Injection* was diluted 1:15 with 100% Solvent A.

Notes: Acetaminophen (n-acetyl-p-aminophenol, APAP) is an non-steroidal anti-inflammatory drug (NSAID) which is widely used for the management of pain and fever. Safety concerns require analyzing the composition of the pharmaceutical formulations.



Attachment

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