

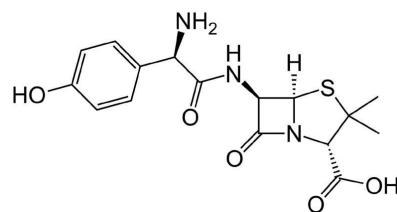
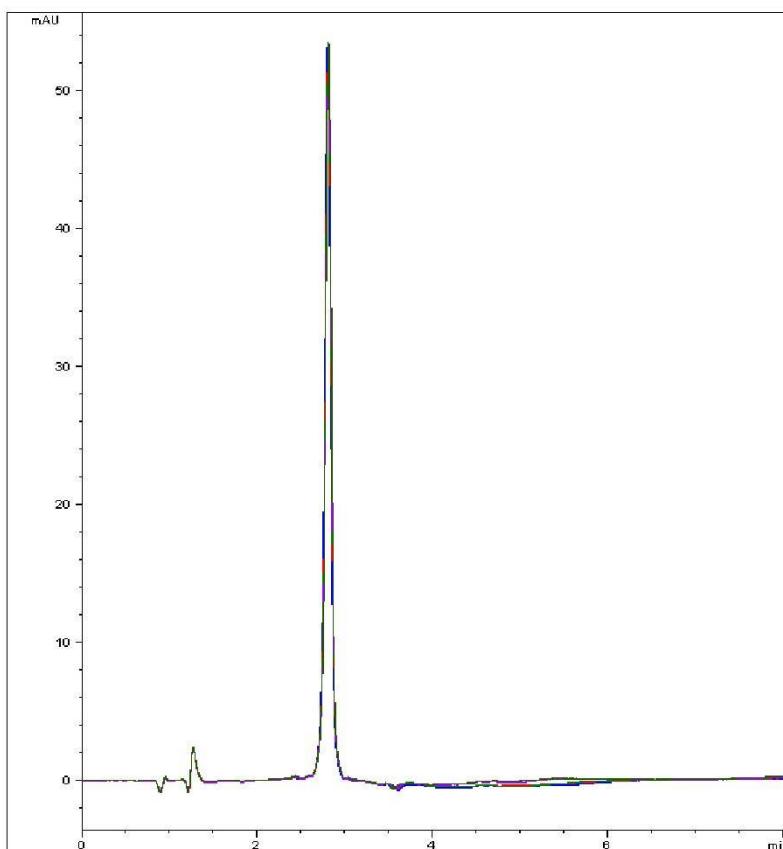


Amoxicillin Analyzed Orthogonally with HPLC - AppNote

Orthogonal Analysis to USP Assay Method for Validation

The USP Assay Method for the antibiotic Amoxicillin is performed in Reversed Phase. Analysis by an Orthogonal Retention mode is very useful and can be readily done by Aqueous Normal Phase (ANP) mode of HPLC, using solvents common to both.

A benefit of this Method is the more Symmetrical Peak Shape obtained. This is important for compounds such as Amoxicillin that can give poor Peak Shapes in many Reversed Phase Methods including the USP Monograph.



Peak:

Amoxicillin

Method Conditions

Column: Cogent Diamond Hydride™, 4µm, 100Å

Catalog No.: 70000-7.5P

Dimensions: 4.6 x 75mm

Mobile Phase:

A: DI Water / 10mM Ammonium Acetate

B: 90% Acetonitrile / 10% DI Water / 10mM Ammonium Acetate

Gradient:

Time (minutes)	%B
0	100
4	90
5	100

Injection vol.: 2µL

Flow rate: 1.0mL / minute

Detection: UV @ 230nm

Sample Preparation:

Stock Solution: 1mg / mL Amoxicillin Trihydrate USP RS in 50:50 Solvent A / Solvent B diluent.

Working Solution: A 100µL aliquot of the *Stock Solution* was diluted to 0.1mg / mL using 900µL 50:50 Solvent A / Solvent B diluent.

t₀: 0.95 minutes

Note: Amoxicillin is a beta-lactam antibiotic used to treat a variety of bacterial infections. Its mechanism of action is by inhibition of the synthesis of bacterial cell walls.



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