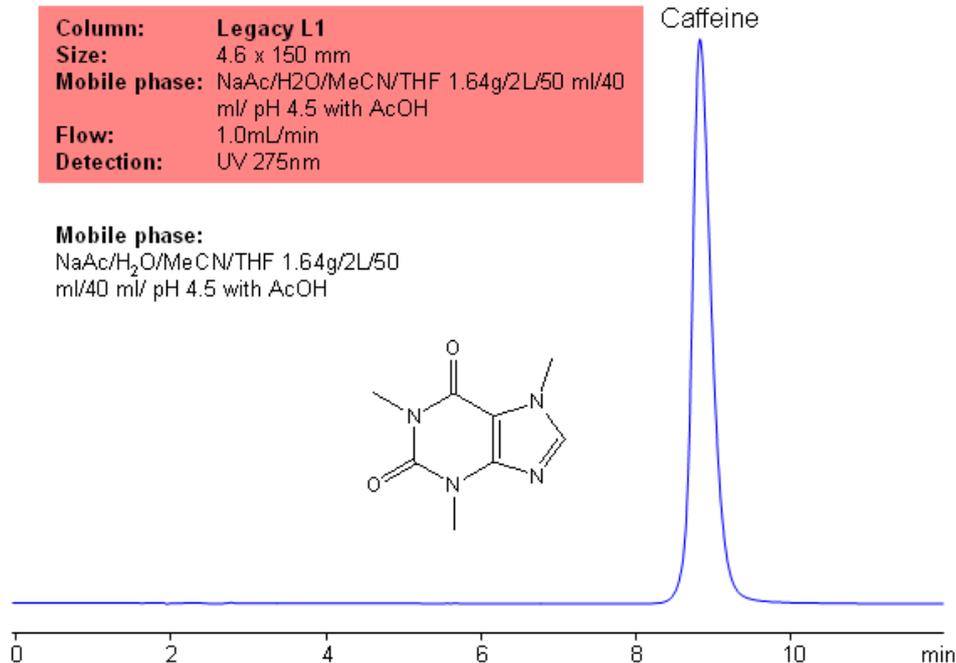


USP Methods for the Analysis of Caffeine using the Legacy L1 Column



Application Notes: Caffeine is the most common stimulant used. According to USP methods, caffeine should be anhydrous or contain no more than one molecule of water of hydration. Additionally, caffeine should not contain more than 101% and no less 98.5% caffeine calculate on a anhydrous basis. The USP HPLC method for the separation of caffeine was developed on Legacy L1 column according to the US Pharmacopeia methodology. L1 classification is assigned to reversed-phase HPLC column containing C18 ligand. Support for the material is spherical silica gel with particles size 3-10 µm and pore size of 100-120 Å. Resolution between critical pairs corresponds to rules and specifications of UPS.

Application Columns: Legacy L1 C18HPLCcolumn

Application compounds: Caffeine

Mobile phase: NaAc/H₂O/MeCN/THF1.64g/2L/50 ml/40 ml/ pH 4.5 with AcOH

Detection technique: UV

Reference: USP35: NF30 Application Columns: Legacy L1 C18HPLCcolumn

Application compounds: Hydrocortisone

Mobile phase: MeCN/H₂O 25:75

Reference: USP30: NF35

SIELC's family of Legacy columns is based on the United States Pharmacopeia's (USP) published chromatographic methods and procedures. Numerous brands have columns used in USP reference standards and methods. USP has created various designations to group together columns with similar

types of packing and properties in the solid phase. SIELC's Legacy columns adhere to these strict requirements and properties, allowing you to easily replace older columns that are no longer available without needing to significantly modify your method or SOPs.

Method Parameters

Column	Legacy L1, 4.6×150 mm, 5 µm, 100 Å
Mobile Phase	NaAc/H ₂ O/MeCN/THF 1.64g/2L/50 ml/40 ml/ pH 4.5 with AcOH
Flow Rate	1.0 mL/min
Detection	UV, 275 nm

Quelle: <https://sielc.com/Application-USP-Methods-for-the-Analysis-of-Caffeine-using-the-Legacy-L1-Column>