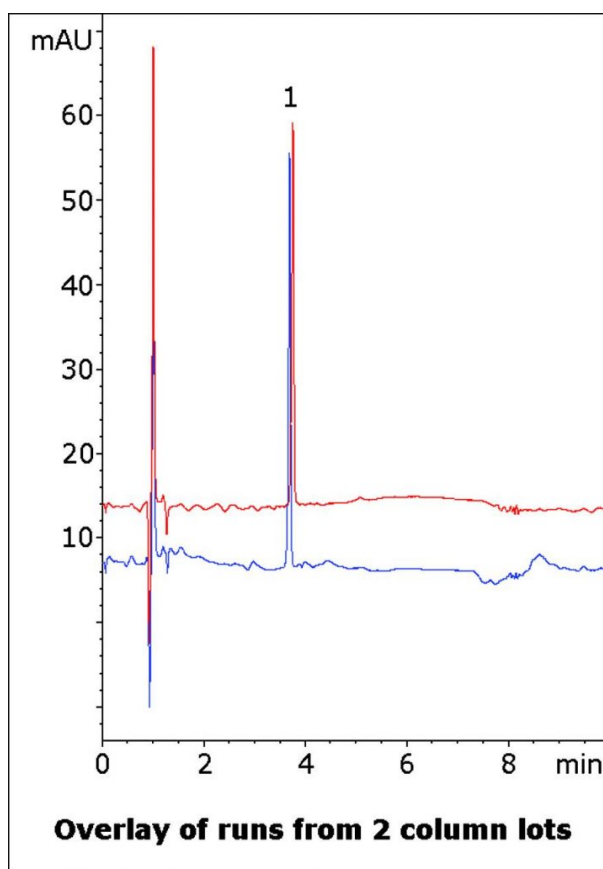


Lidocaine in Gel Analyzed with HPLC – AppNote

Assay Method for Solarcaine® Gel Extract

This AppNote shows how Lidocaine Hydrochloride (HCL) from a gel extract can be easily analyzed. The compound has a tertiary amine but excellent Peak shape is achieved; which is often difficult to obtain for analytes like this.

A Gradient was used to ensure components from the gel extract matrix do not build up on the Column and adversely affect robustness or Column life. The Column robustness is demonstrated by the overlay of injections from two different Column lots.



Peak:

1. Lidocaine

Method Conditions

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

Catalog No.: 70000-7.5P

Dimensions: 4.6 x 75mm

Mobile Phase:

A: DI Water / 0.1% Trifluoroacetic Acid (v/v)

B: Acetonitrile / 0.1% Trifluoroacetic Acid (v/v)

Gradient:

Time (minutes)	%B
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0	97
1.5	97
6	40
7	97

Post Time: 3 minutes

Injection vol.: 2µL

Flow rate: 1.0mL / minutes

Detection: UV @ 220nm

Sample Preparation: 250mg Solarcaine gel containing 0.5% Lidocaine HCL was weighed in a 25mL volumetric flask. A portion of 50:50 Solvent A / Solvent B diluent was added and the flask was sonicated 15 minutes at 40°C. It was then diluted to mark and filtered with a 0.45µm Nylon Syringe Filter (MicroSolv Tech Corp.).

t₀: 0.9 minutes

Note: Lidocaine is a local anesthetic used in a variety of applications such as sunburn relief and numbing for dental procedures. As such, several types of formulations are used such as topical creams / gels and injectable solutions. Trade names include Solarcaine and Xylocaine®.



Attachment

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