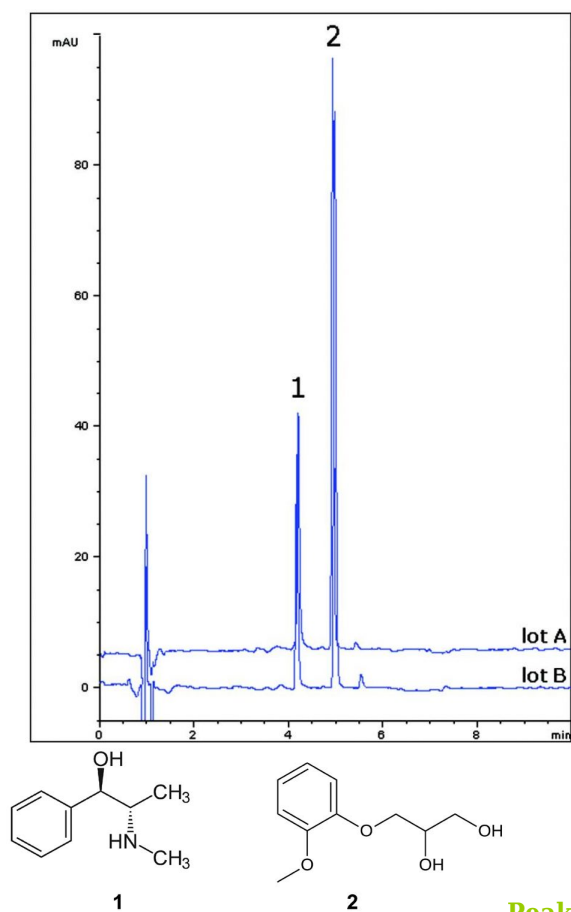


## Primatene Tablet Analyzed with HPLC – AppNote

### Separation of Guaifenesin and Ephedrine from an OTC Formulation

These two compounds are used together in the Primatene® formulation for the purpose of treating Bronchial Asthma. The Separation obtained illustrates the application of this Method in the Analysis of an Over the Counter Formulation.

A wavelength change was used in order to make the two peak heights more comparable (*there is much more Guaifenesin than Ephedrine in the tablet*). Data from two different Column lots is shown in the figure in order to demonstrate the reproducibility of this Method.



Peaks:

1. Ephedrine
2. Guaifenesin

### Method Conditions

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

**Catalog No.:** 40018-75P

**Dimensions:** 4.6 x 75mm

**Mobile Phase:**

A: DI Water with 0.1% TFA (v/v)

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B: Acetonitrile with 0.1% TFA (v/v)

**Gradient:**

Time (minutes)	%B
0	5
1	5
6	50
7	5

**Post Time:** 3 minutes (3.3 Column Volumes)

**Injection vol.:** 2µL

**Flow rate:** 1.0mL / minute

**Detection:** UV @ 214nm (0-4.5 minutes), then 285nm (4.5-10 minutes)

**Sample Preparation:**

The stock solution was prepared by dissolving 1.0mg of standards in 10.00mL of the Mobile Phase (50:50 Solvent A / Solvent B). The solution was then filtered with a 0.45µm Nylon Syringe Filter (MicroSolv Tech Corp.). The injection sample was diluted 1:10.

A Primatene® Tablet containing 12.5mg Ephedrine HCL and 200mg Guaifenesin was ground and added to a 25mL volumetric flask. A portion of 50:50 Solvent A / Solvent B diluent was added and the flask was sonicated 10 minutes. It was then diluted to mark and mixed. A portion was filtered with a 0.45µm Nylon Syringe Filter (MicroSolv Tech Corp.) and diluted 1:10.

**t<sub>0</sub>:** 0.9 minutes



**Attachment**

No 252 Primatene Tablet Analyzed with HPLC pdf 0.3 Mb [Download File](#)

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