

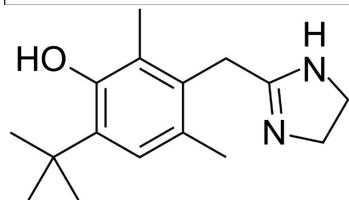
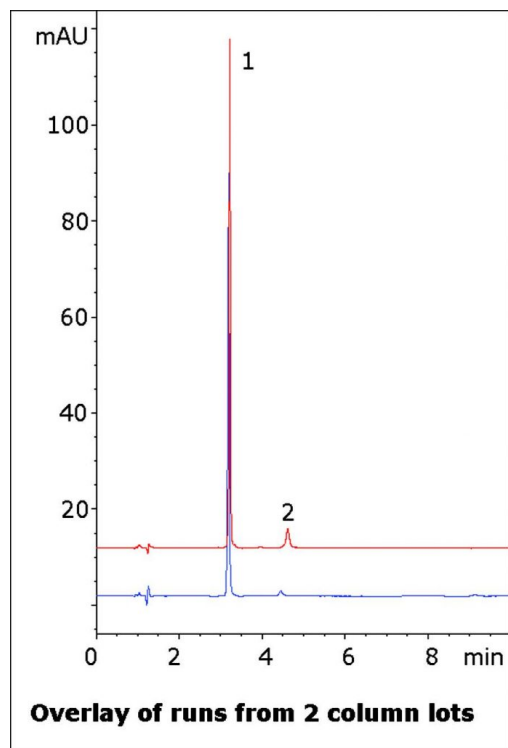


## Oxymetazoline HCL Analyzed with HPLC - AppNote

### **Polar API Separated from a Matrix Peak**

Oxymetazoline can be difficult to obtain a good Peak Shape with conventional HPLC Methods, and the USP System Suitability requires that the Tailing Factor be not more than 2.0. Also, the USP Method calls for a Cation Exchange (L9) Column for the Assay. This Method produces excellent Peak Shape also shows Separation of the API from a matrix component or another ingredient in the formulation.

Two runs from different Column batches are overlaid in the Chromatogram to show the Method Robustness and Precision.





### Peaks:

1. Oxymetazoline
2. Matrix component

### Method Conditions

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

**Catalog No.:** 70000-7.5P

**Dimensions:** 4.6 x 75mm

#### Mobile Phase:

A: DI Water with 0.1% Trifluoroacetic Acid (TFA)

B: Acetonitrile with 0.1% Trifluoroacetic Acid (TFA)

#### Gradient:

Time (minutes)	%B
0	97
1	97
6	40
7	97

**Post Time:** 3 minutes



**Injection vol.:** 1 $\mu$ L

**Flow rate:** 1.0mL / minute

**Detection:** UV @ 280nm

**Sample Preparation:** Nasal spray solution containing 0.05% Oxymetazoline HCL was filtered with a 0.45 $\mu$ m Nylon Syringe Filter (MicroSolv Tech Corp.) and used for injections.

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

***Note:** Oxymetazoline is a decongestant that acts as a selective alpha-1 agonist and partial alpha-2 agonist. It is the active ingredient in many nasal spray solutions. It also has vasoconstriction properties and is therefore used in eye drop solutions as well.*



## Attachment

**No 204 Oxymetazoline HCL Analyzed with HPLC pdf** 0.4 Mb [Download File](#)