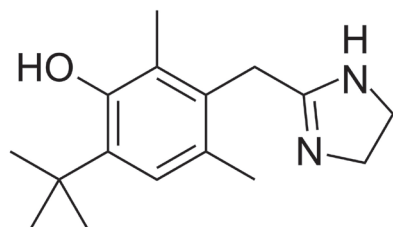
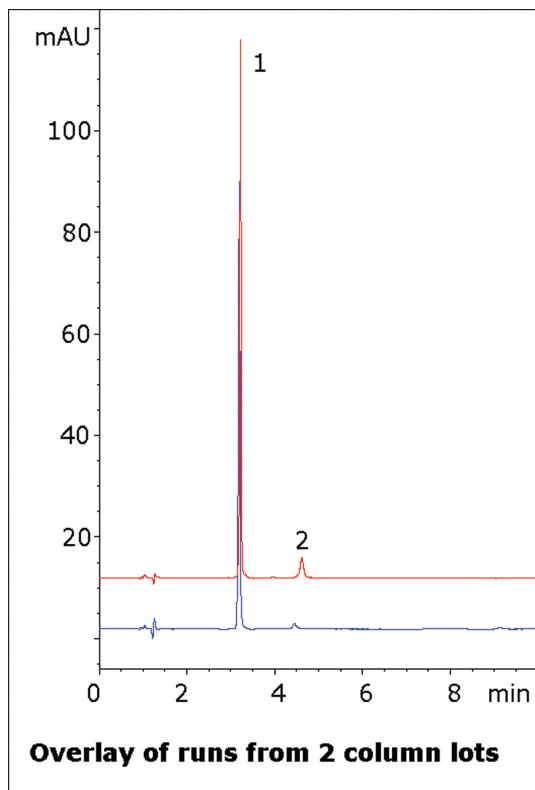


# Oxymetazoline HCl

## Nasal spray solution



Oxymetazoline

**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 vasoconstricting properties and is therefore used in eye drop solutions as well.

### Method Conditions

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

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

**Dimensions:** 4.6 x 75 mm

**Mobile Phase:** A: DI H<sub>2</sub>O / 0.1% trifluoroacetic acid (TFA)  
B: Acetonitrile / 0.1% trifluoroacetic acid (TFA)

Gradient:	time (min.)	%B
	0	97
	1	97
	6	40
	7	97

**Post Time:** 3 min

**Injection vol.:** 1µL

**Flow rate:** 1.0 mL/min

**Detection:** UV 280 nm

**Sample:** Nasal spray solution containing 0.05% oxymetazoline HCl was filtered with a 0.45µm nylon syringe filter (MicroSolv Tech Corp.) and used for injections.

**Peaks:** 1. Oxymetazoline  
2. Matrix component

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

### Discussion

Oxymetazoline is difficult to obtain a good peak shape for with conventional HPLC columns, and the USP system suitability requires that the tailing factor be not more than 2.0. The USP method calls for a cation exchange (L9) column for the assay.

Here excellent peak is obtained and the method also shows separation of the API from a matrix component (possibly another ingredient in the formulation or an impurity).