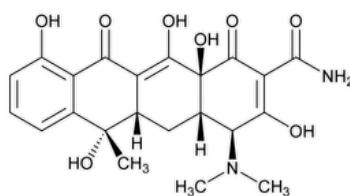
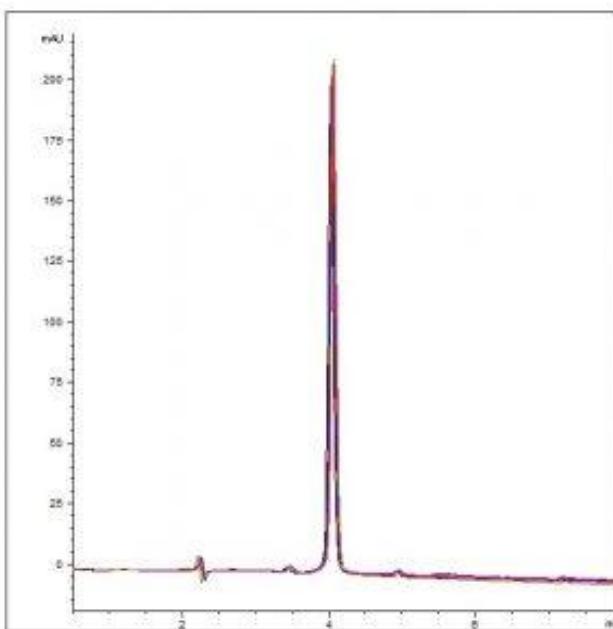




## Tetracycline USP Assay by HPLC- AppNote

### USP Method for Tetracycline

This USP Tetracycline Assay is performed and a five injection overlay shows run to run consistency and Precision. The Peak Efficiency is very good and Peak Tailing guidelines are easily met with RSD values less than 0.4%. This demonstrates a good Alternate Column for your USP Method.



**Peak:**

Tetracycline

### Method Conditions:

**Column:** Cogent RP C18 PE™, 5µm, 100Å

**Catalog No.:** [84518-15P](#)

**Dimensions:** 4.6 x 150mm

### Mobile Phase:

A: DI Water 0.1% Phosphoric Acid

B: Acetonitrile

Time (minutes)	%B
0	15
7.5	15

7.6	40
10	15

**Injection vol.:** 10 $\mu$ L

**Flow rate:** 1.0 mL / minute

**Detection:** UV @ 280nm

**Sample Preparation:** Standard solution: 100 $\mu$ g / mL of USP Tetracycline in Mobile Phase A

Most recently appeared in Pharmacopeial Forum: Volume No. 43(6) Page Information:

*USP43-NF38 – 1827*

*USP42-NF37 – 1787*

*USP41-NF36 – 1690*

**Note:** Tetracycline is a broad spectrum antibiotic produced by the *Streptomyces* genus of *Actinobacteria*. It exerts a bacteriostatic effect on bacteria by binding reversible to the bacterial 30S ribosomal subunit and blocking incoming aminoacyl tRNA from binding to the ribosome acceptor site. It also binds to some extent to the bacterial 50S ribosomal subunit and may alter the cytoplasmic membrane causing intracellular components to leak from bacterial cells.



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