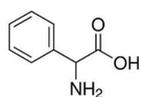
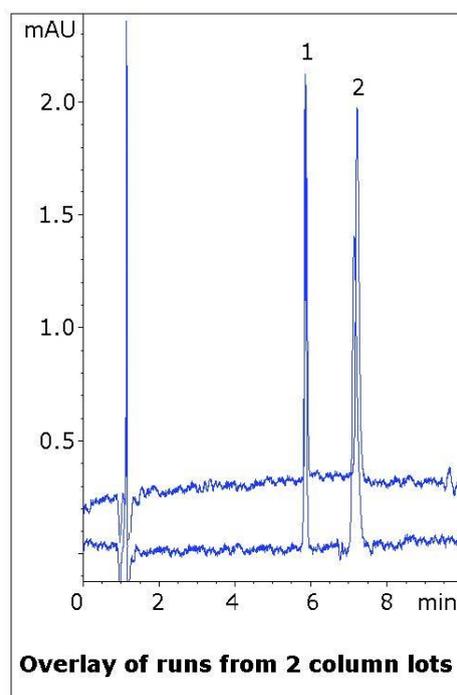


## Sertraline and Phenylglycine Analyzed with HPLC - AppNote

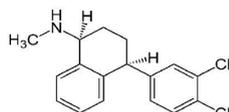
### Retention of Hydrophobic and Hydrophilic Analytes with Zoloft®

Sertraline has a logP of 2.9, but retains well when using Aqueous Normal Phase (ANP) HPLC. A polar test solute, Phenylglycine, was added to demonstrate how both nonpolar and polar compounds can be retained in the same Method. This would be important when looking for impurities or degradants in the formulation.

Furthermore, Sertraline's amine group can produce problematic tailing with some Reversed Phase columns, but the Peak Symmetry obtained with this Method is very good. Data from two column lots is presented to illustrate Method Robustness and lot-to-lot consistency.



Phenylglycine



Sertraline

**Peaks:** 1. Phenylglycine, 2. Sertraline

### Method Conditions

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

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

**Dimensions:** 4.6 x 75 mm

**Mobile Phase:**

- A: DI Water with 0.1% Formic Acid (v/v)
- B: Acetonitrile with 0.1% Formic Acid (v/v)

**Gradient:**

Time (minutes)	%B
0	95
1	95
6	50
7	95

**Post Time:** 3 minutes**Injection vol.:** 1µL**Flow rate:** 1.0 mL / minute**Detection:** UV @ 254 nm

**Sample Preparation** : 25 mg strength Sertraline (Zoloft®) tablet was ground and added to a 25 mL 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 0.45 µm Nylon Syringe Filter (MICROSOLV Tech Corp.) and mixed 1:1 with a 1 mg / mL Phenylglycine solution.

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

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**Note:** Sertraline is a selective Serotonin reuptake inhibitor used to treat major depressive disorder. It is widely prescribed and sold as Zoloft® from Pfizer.

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**Attachment No 246 Sertraline Tablet Analyzed with HPLC pdf** 0.3 Mb [Download File](#)

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