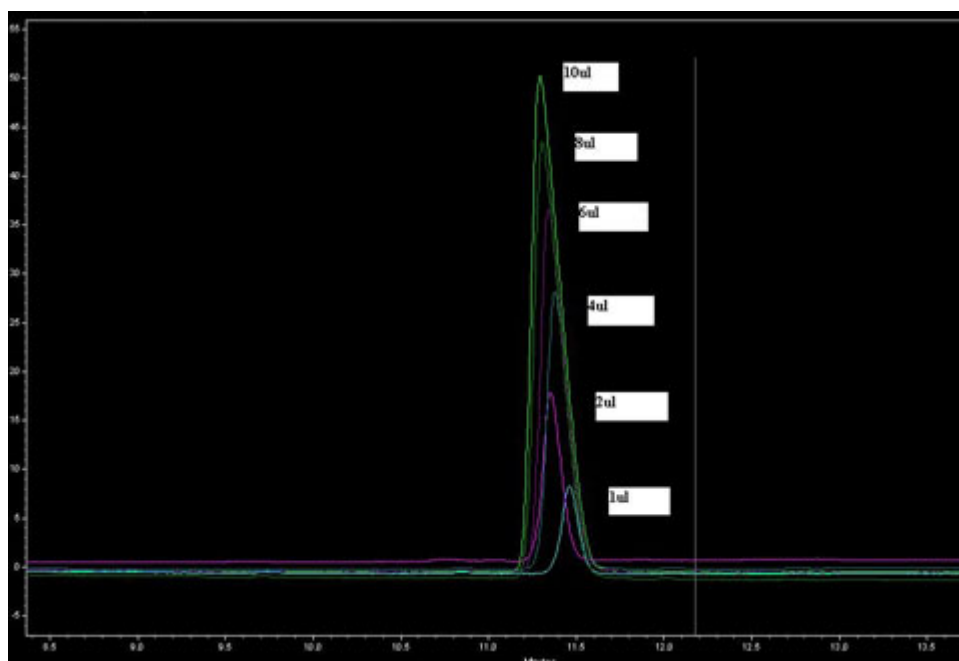


## What effect does high injection volume have on column performance in Aqueous Normal Phase ANP HPLC-FAQ

When using the Cogent TYPE-C™ HPLC columns in **Aqueous Normal Phase ANP** mode, which is the best mode for hydrophilic or polar analytes, you should expect the same sample loading **capacity** as you would expect in typical, ordinary Normal Phase HPLC or the same as in HILIC, which is lower than you might expect for Reversed Phase RP HPLC.

For this reason, when using standard 4.6mm ID analytical Columns for example, the injection volume should be kept below 5µL if possible in order to avoid loss of Efficiency or peak shape distortion.

The figure shown below illustrates the effect of different Injection volumes in the range of 1–10µL for a test solute using the same method. The higher injection volumes produce broader, less symmetrical peaks.



*To get sharp, symmetrical peaks simply inject less amount when working in ANP.*



**Attachment**

**Injection Volume Study.jpg** 58.1 Kb [Download File](#)

Printed from the Chrom Resource Center

**MicroSolv Technology Corporation**

9158 Industrial Blvd. NE, Leland, NC 28451

tel. (732) 380-8900, fax (910) 769-9435

Email: [customers@mtc-usa.com](mailto:customers@mtc-usa.com)

Website: [www.mtc-usa.com](http://www.mtc-usa.com)

Date: 05-05-2024