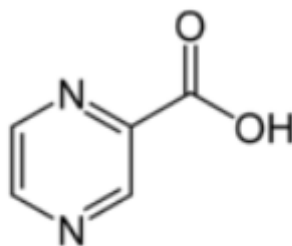


Eliminate broad split peaks in Aqueous Normal Phase ANP methods and a methanol diluent- Tips & Suggestions

Case Study: When analyzing Pyrazinoic Acid with an Aqueous Normal Phase HPLC ANP method and using the Cogent Diamond Hydride™ column I observe two broad, split peaks for the analyte. I am using an acetonitrile / DI water / formic acid based mobile phase and my diluent is 50:50 methanol / acetonitrile. Retention is also low. What can I do to improve peak shape and/or retention?

Suggestion: The absence of water in your diluent may be contributing to the split broad peak shape. This has often been observed when using non aqueous containing diluents with an aqueous / organic ANP mobile phase.

Try a diluent of 50/50/0.1 acetonitrile / DI water / formic acid. If that does not solve the problem, try an ammonium acetate-based mobile phase and diluent (10mM). You will probably be using negative ion mode in that case. With the carboxyl group ionized, you will probably be looking for the [M-H]⁻ ion. You can expect stronger retention with the carboxyl group ionized.



Pyrazinoic Acid



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

Website: www.mtc-usa.com

Date: 05-16-2024