

## How to Separate Phenylephrine HCl, Acetaminophen, and Dextromethorphan.

The Cogent Phenyl Hydride™ would be recommended for these compounds because of Dextromethorphan. It has a strong tendency to tail on most columns but the Phenyl Hydride™ Column can produce a very Symmetrical Peak; a Mobile Phase Additive of 0.1% TFA would be beneficial as well for reducing Dextromethorphan Tailing.

Phenylephrine HCL does not normally retain very well in Reversed Phase so a starting mobile phase of ~95% Aqueous is suggested. The Dextromethorphan is more Hydrophobic and so a gradient going to ~50% organic would be recommended. Be sure not to start the gradient until after the Phenylephrine elutes or you may get less retention. Acetaminophen shows moderate retention and good separation should be achievable between it and Phenylephrine with a high Water content Mobile Phase.

The Cogent Bidentate C18™ column is another alternative. It is more Hydrophobic than the Cogent Phenyl Hydride™ so you may get better retention of the Phenylephrine and Acetaminophen. However, Dextromethorphan will likely have more tailing than with the Cogent Phenyl Hydride™.

[Phenyl Hydride™ Product Page](#)

[Bidentate C18™ Product Page](#)

