

Cocaine & Metabolite Ecognin Separation Column Suggestions - Tips & Suggestions

Date: 31-MARCH-2012 Last Updated: 1-DECEMBER-2025

Question: *We are looking for a column capable of separating cocaine and its metabolites particularly Ecgonin which is very polar. The remaining metabolites (BE, EME, etc.) are less polar. The idea would be to separate all of them in one run. Any suggestion which type of Cogent TYPE-C column for direct injection of water samples using HPLC-MSMS?*

Suggestions: We have found the [Cogent Phenyl Hydride™](#) gives great peak shapes for alkaloids. However, I think the Ecgonin might not retain in Reversed Phase and as such, I believe the [Cogent Diamond Hydride™](#) would be the best option.

Cocaine has a tertiary amine so I'm pretty sure it will retain with an Aqueous Normal Phase ANP method. Plavix Clopidogrel for example is pretty hydrophobic but it has a tertiary amine and retained nicely using the Cogent Diamond Hydride™ column ([MTC App A166](#)).

You can start with 0.1% formic acid in the mobile phase to reduce tailing issues with the analytes.

