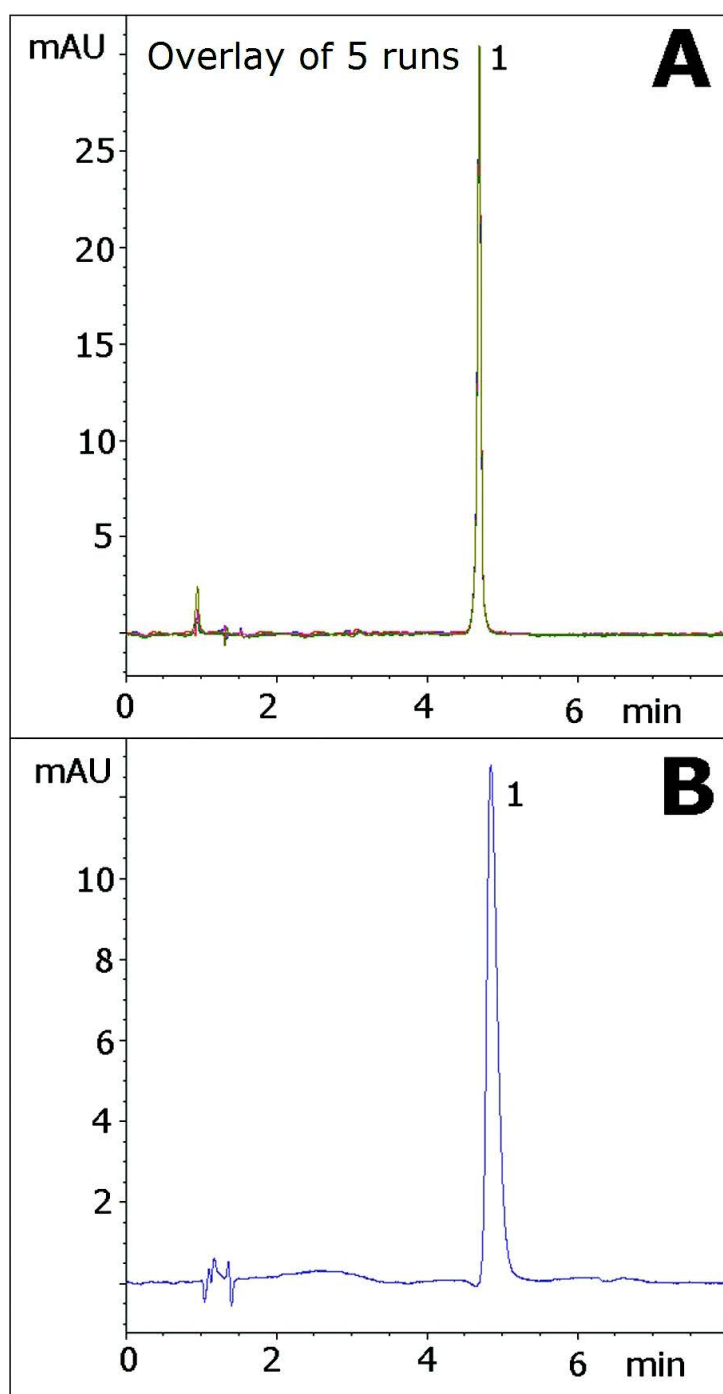


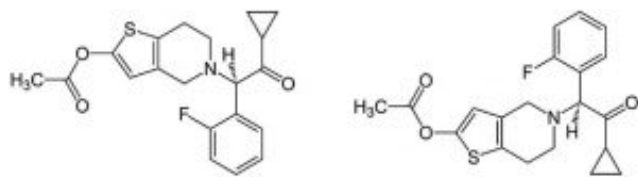
Prasugrel Analyzed with HPLC – AppNote

Comparison of Diamond Hydride to C18 HPLC Column

Prasugrel has a tertiary Amine and therefore tails in many Reversed Phase methods and conventional HPLC columns. Figure A shows how a sharp and symmetrical peak can be easily obtained with the Cogent Diamond Hydride Column using an MS-compatible Mobile Phase.

Figure B shows the peak that was obtained using a Reversed Phase gradient (30–60%B over 5 minutes) using the same Mobile Phase solvents and a Type B silica based C18 Column. Here the effects of residual silanols on the Type B silica based column lead to peak tailing.





Peak:

Prasugrel

Method Conditions

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

Catalog No.: 70000-7.5P

Dimensions: 4.6 x 75mm

Mobile Phase:

A: DI Water / 0.1% Formic Acid (v/v)

B: Acetonitrile / 0.1% Formic Acid (v/v)

Gradient:

Time (Minutes)	%B
0	97
1	97
5	60
6	97

Post Time: 2 minutes

Flow rate: 1.0 mL/minute

Detection: 254 nm

Injection vol.: 1μL

Sample Preparation: 0.1 mg/mL Prasugrel in Methanol diluent

t₀: 0.9 minutes

Note: Prasugrel is a platelet inhibitor which was approved by the US Food and Drug Administration in 2009 for the reduction of thrombotic cardiovascular events. It is marketed as Effient®.



Attachment

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