

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.

Printed from the Chrom Resource Center

Copyright 2024, All Rights Apply

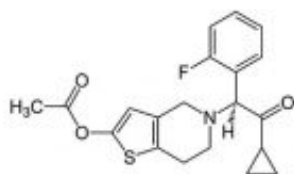
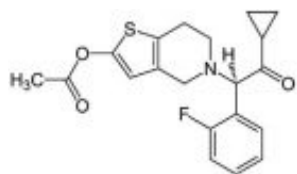
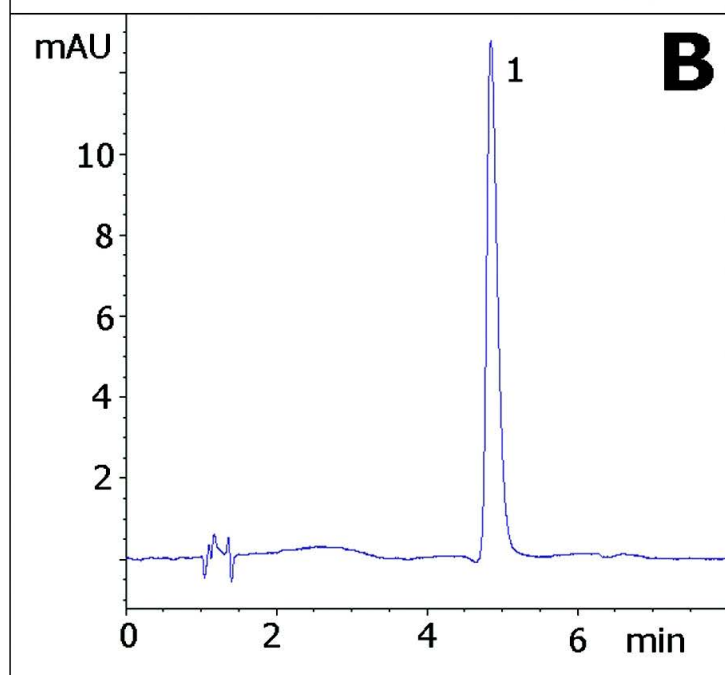
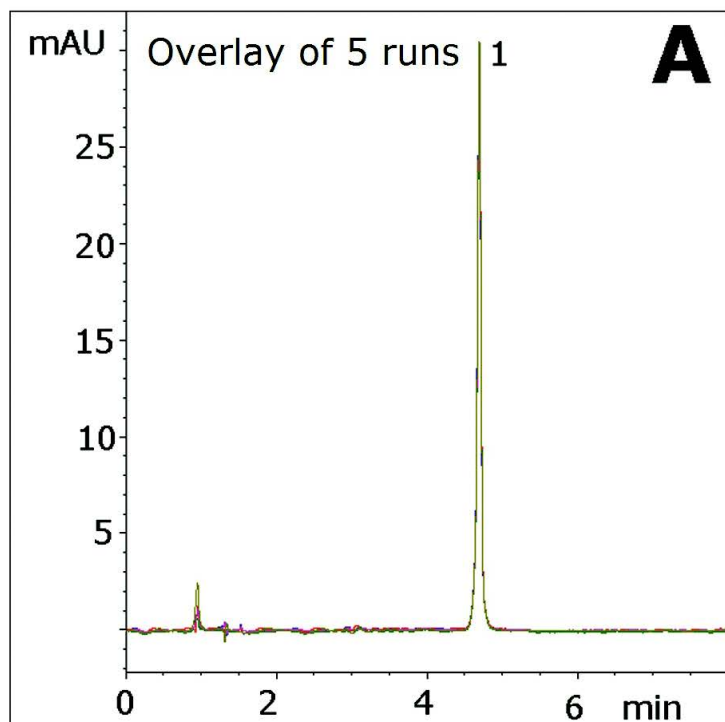
MicroSolv Technology Corporation

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



Peak:

Prasugrel

Method Conditions

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

Catalog No.: 70000-7.5P

Printed from the Chrom Resource Center

Copyright 2024, All Rights Apply

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

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

No 187 Prasugrel.pdf 0.7 Mb [Download File](#)