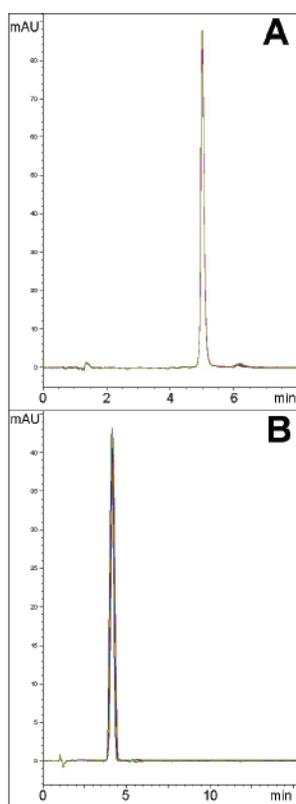
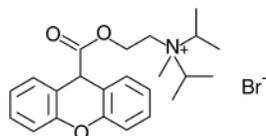


## Orthogonal Methods for Proprantheline Bromide

### Simple methods without use of ion-pairing agents



**Notes:**

Proprantheline bromide is a muscarinic acetylcholine receptor antagonist which is used for the treatment of ulcers, cramps and spasms of the digestive system, and hyperhidrosis.

#### Method Conditions

<b>Column:</b>	<b>Fig. A:</b> Phenyl Hydride™, 4µm, 100A <b>Fig. B:</b> Diamond Hydride™, 4µm, 100A																				
<b>Catalog No.:</b>	<b>Fig. A:</b> 69020-7.5P <b>Fig. B:</b> 70000-7.5P																				
<b>Dimensions:</b>	4.6 x 75 mm																				
<b>Solvents:</b>	A: DI water/ 0.1% formic acid B: 97% Acetonitrile/ 3% DI water/ 0.1% formic acid																				
<b>Gradient:</b>	<table border="1"> <thead> <tr> <th colspan="2">Fig. A</th> <th colspan="2">Fig. B</th> </tr> <tr> <th>time (min.)</th> <th>%B</th> <th>time (min.)</th> <th>%B</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>10</td> <td>0</td> <td>80</td> </tr> <tr> <td>4</td> <td>50</td> <td>4</td> <td>70</td> </tr> <tr> <td>5</td> <td>10</td> <td>5</td> <td>80</td> </tr> </tbody> </table>	Fig. A		Fig. B		time (min.)	%B	time (min.)	%B	0	10	0	80	4	50	4	70	5	10	5	80
Fig. A		Fig. B																			
time (min.)	%B	time (min.)	%B																		
0	10	0	80																		
4	50	4	70																		
5	10	5	80																		
<b>Flow rate:</b>	1.0 mL/min																				
<b>Injection volume:</b>	10 µL																				
<b>Temperature:</b>	<b>Fig. A:</b> 35 °C <b>Fig. B:</b> 25 °C																				
<b>Sample:</b>	Stock Solution: 1 mg proprantheline bromide diluted with 1 mL of 50:50 A:B. Working Solution: 100 µL stock diluted with 900 µL 50:50 solvent A: solvent B.																				
<b>Peaks:</b>	Proprantheline bromide																				
<b>Detection:</b>	UV 254 nm																				

#### Discussion

In the USP assay method for proprantheline bromide tablets, sodium dodecyl sulfate (SDS) is used as an ion-pairing agent in the mobile phase. The long alkyl chain of this additive makes it particularly difficult and time-consuming to load and remove from the HPLC column. Using Cogent™ HPLC columns, not only is the need for ion-pairing agents eliminated but the assay can be performed in either the reversed phase (Phenyl Hydride, Figure A) or aqueous normal phase mode (Diamond Hydride, Figure B). The mobile phase solvents can be used for many methods using the TYPE-C™ columns, which saves a laboratory both time and money by not having to prepare specialized mobile phases for every analysis. Both methods illustrate good repeatability, with each run from the five-run overlays shown in a different color.

For more information visit [www.MTC-USA.com](http://www.MTC-USA.com)

Cat. No.	Description
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69020-7.5P	Phenyl Hydride™ HPLC Column, 100A, 4µm, 4.6mm x 75mm
70000-7.5P	Diamond Hydride™ HPLC Column, 100A, 4µm, 4.6mm x 75mm