

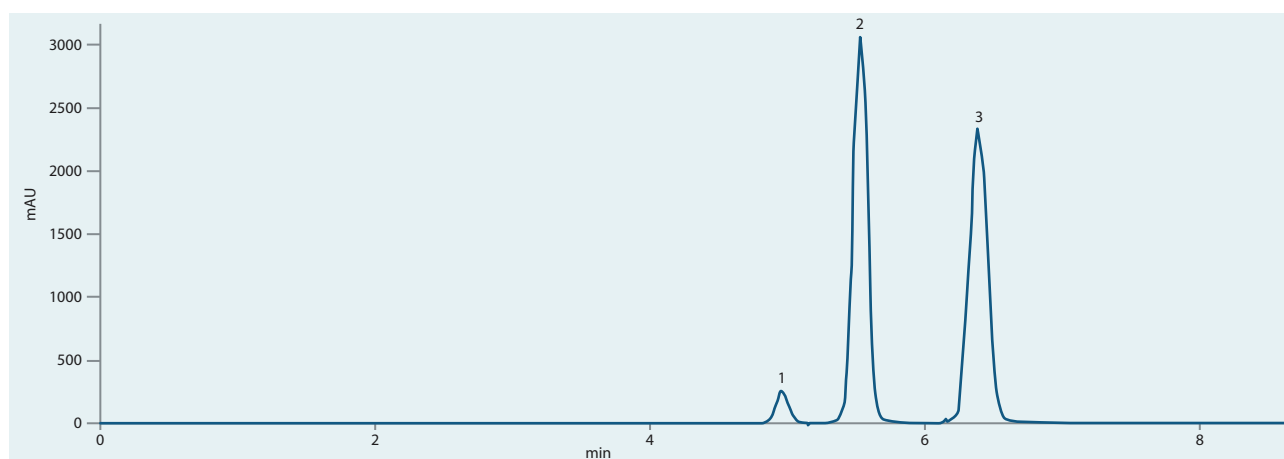


PROSTAGLANDINS

INTRODUCTION

Prostaglandin Active Pharmaceutical Ingredients (APIs) play a significant role in the bodies of humans and animals, and therefore are synthesised for use in ophthalmology, veterinary, and vascular treatment.

Substance: Prostaglandins synthesised by Caymanpharma



Stress test – test mixture on ARION® column

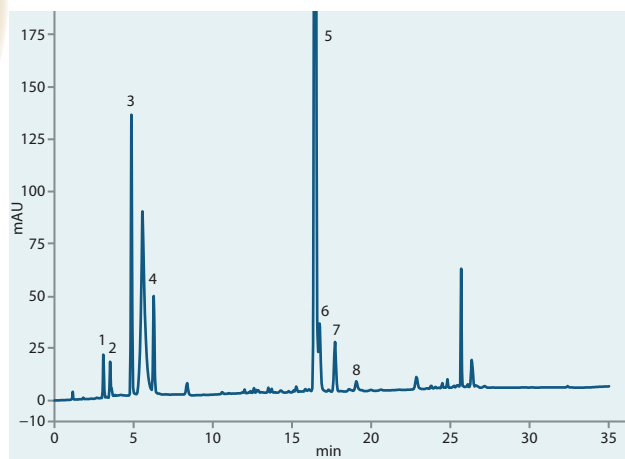
Column	ARION® Si, 10 µm
Dimensions	250 mm × 10 mm
Part number	ARI-5735-IK21
Mobile phase	1 % IPA in DCM, isocratic
Flow rate	3 ml/min
Temperature	Ambient
Detection	UV @254 nm
Analytes	1. 1,3,5-tercbutylbenzene 2. Acetophenon 3. Benzophenon

This application was developed by Cayman Pharma Czech Republic:

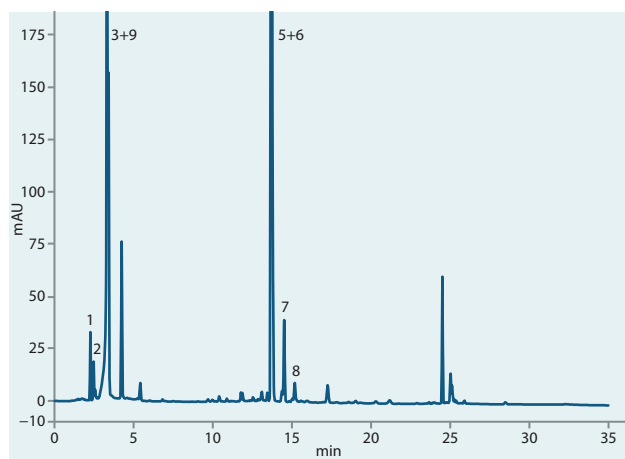
“Congratulations, this is probably the best semipreparative column I have ever used.”



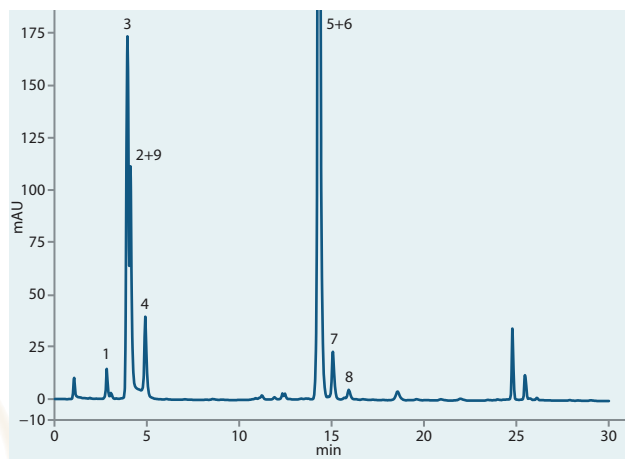
PROSTAGLANDINS



Separation on ARION® C18

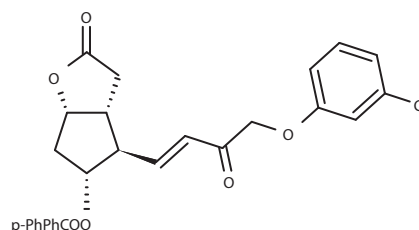


Separation on core-shell column (Competitor K)



Separation on fully porous C18 column
(Competitor S)

Column	ARION® Plus C18 3 µm, Core-shell C18 2.6 µm, Fully-porous C18 3 µm																
Dimensions	150 mm × 4.6 mm																
Part number	ARION®: ARI-5720-IK46																
Mobile phase	A: ACN:H2O (50:50), B: 90% ACN																
Gradient elution	<table> <tr> <th>Time (min)</th><th>A (%)</th></tr> <tr><td>0</td><td>100</td></tr> <tr><td>7</td><td>100</td></tr> <tr><td>10</td><td>55</td></tr> <tr><td>20</td><td>55</td></tr> <tr><td>23</td><td>0</td></tr> <tr><td>30</td><td>0</td></tr> <tr><td>35</td><td>100</td></tr> </table>	Time (min)	A (%)	0	100	7	100	10	55	20	55	23	0	30	0	35	100
Time (min)	A (%)																
0	100																
7	100																
10	55																
20	55																
23	0																
30	0																
35	100																
Flow rate	1 ml/min																
Temperature	40 °C																
Detection	UV @274 nm																
Analytes	1. impurity 1 2. impurity 5 3. impurity 2 4. impurity 4 5. main peak 6. impurity 7 7. impurity 8 8. impurity 9 9. impurity 3																



Main peak structure

