

Irinotecan (CPT-11) Analysis on Opalshell C18

HPLC Column, Sepax, Opalshell-C18, 2.6 μm , 90 Å 4.6 x 100 mm
(PN: 104182-4610)



Irinotecan Analysis on Opalshell C18 (4.6x100mm)

Column: Opalshell C18(2.6 μm , 90 \AA , 4.6 x 100 mm)

Column temperature: 25°C

Mobile phase: A : 2.72 g/L KH_2PO_4 , pH 3.5 by 1/20

Injection volume: 10 μL

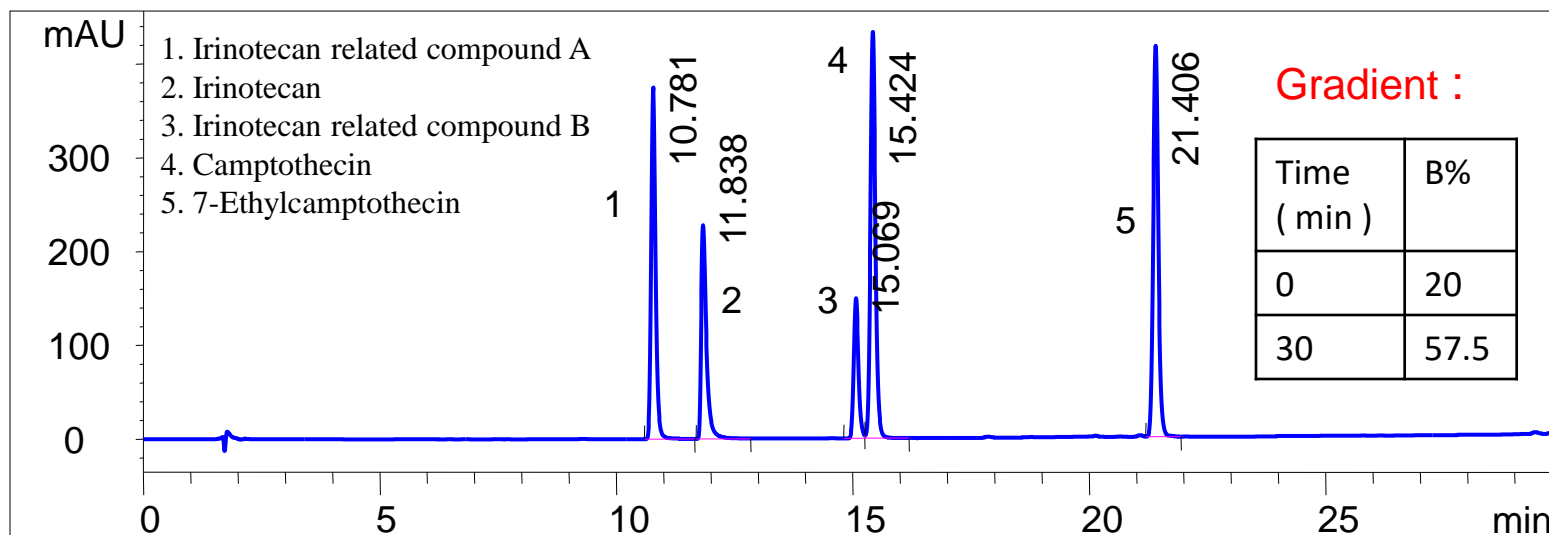
H_3PO_4 ; B: ACN : MeOH = 3 : 2

Sample: Irinotecan sample mixture

Flow rate: 0.6 mL/min

Pressure: 114 bar

Detector: UV 220 nm

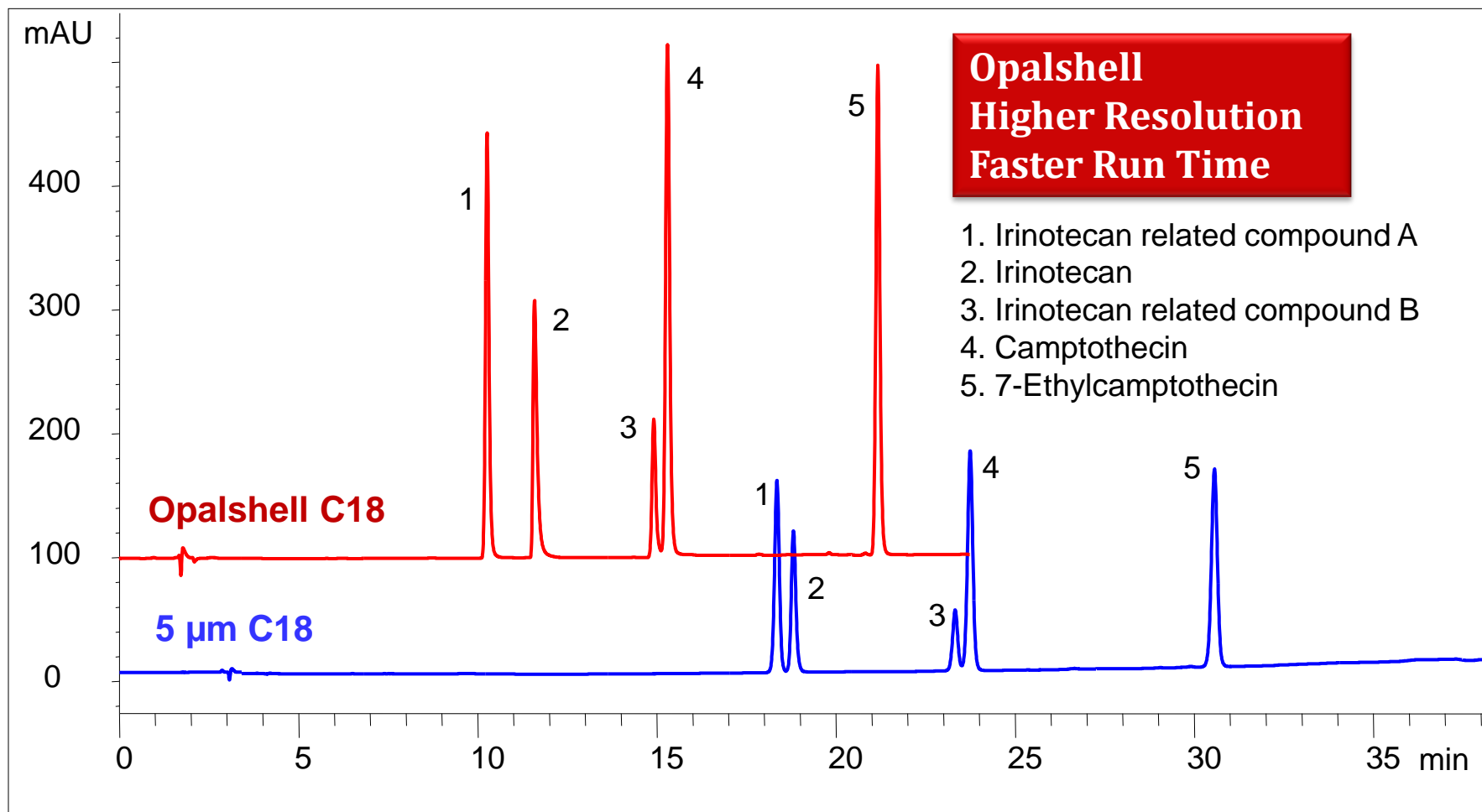


| Compound Name | RT [min] | Height | Area | Area % | Plates | Tailing | Resolution |
|---------------|----------|--------|------|--------|--------|---------|------------|
| | 10.78 | 374 | 2464 | 21.108 | 66604 | 1.22 | |
| | 11.84 | 223 | 1776 | 15.216 | 63181 | 1.78 | 5.94 |
| | 15.07 | 149 | 1039 | 8.901 | 111896 | 1.23 | 17.51 |
| | 15.42 | 431 | 3238 | 27.736 | 103703 | 1.13 | 1.91 |
| | 21.41 | 416 | 3157 | 27.040 | 192133 | 1.11 | 30.87 |



Irinotecan Analysis

Opalshell 2.6 μm C18 vs a 5 μm C18 Overlays



Irinotecan Analysis on 5 μ m C18 (4.6x250 mm)

Column: 5 μ m C18(5 μ m, 100 Å, 4.6 x 250 mm)

Column temperature: 25°C

Mobile phase: A : 2.72 g/L KH₂PO₄, pH 3.5 by 1/20

Injection volume: 10 μ L

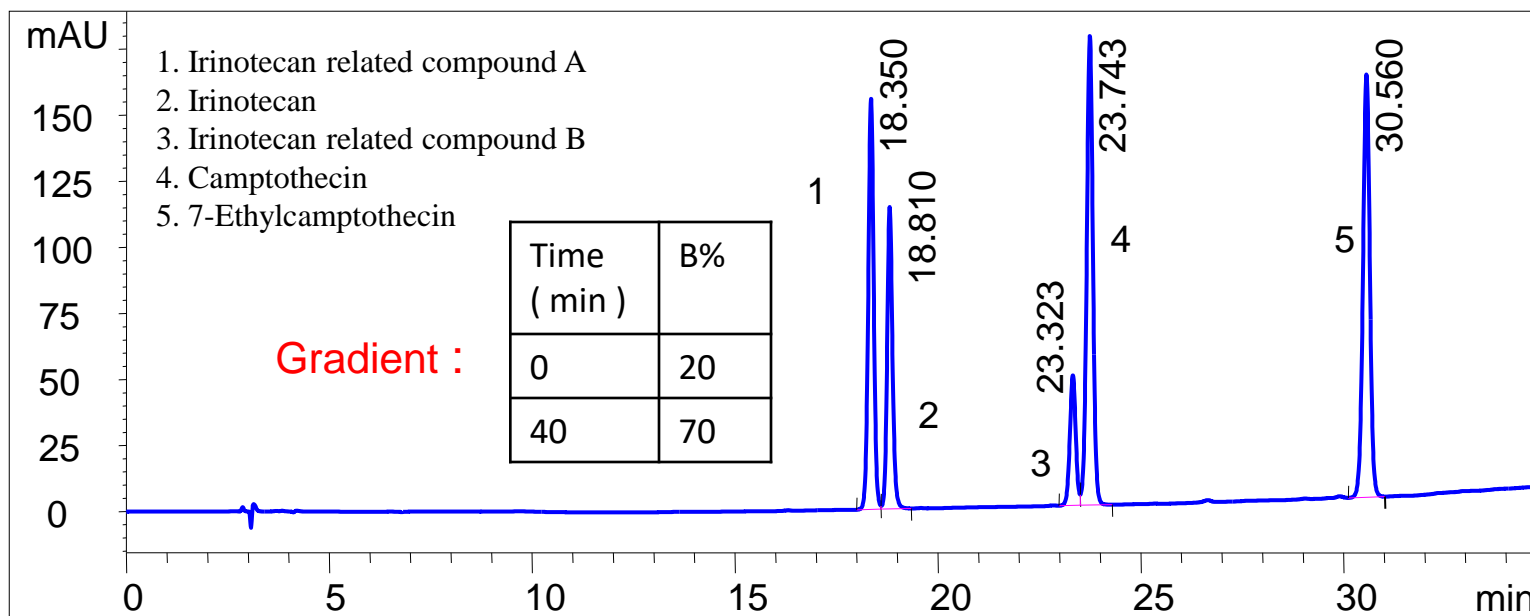
H₃PO₄; B : ACN : MeOH = 3 : 2

Sample: Irinotecan sample mixture

Flow rate: 1.0 mL/min

Pressure: 138 bar

Detector: UV 220 nm



| Compound Name | RT [min] | Height | Area | Area % | Plates | Tailing | Resolution |
|---------------|----------|--------|------|--------|--------|---------|------------|
| | 18.35 | 155 | 1459 | 21.488 | 89929 | 1.03 | |
| | 18.81 | 114 | 1052 | 15.495 | 101028 | 1.15 | 1.91 |
| | 23.32 | 49 | 502 | 7.387 | 121710 | 1.05 | 17.88 |
| | 23.74 | 177 | 1888 | 27.818 | 117037 | 1.01 | 1.54 |
| | 30.56 | 160 | 1888 | 27.811 | 155817 | 0.99 | 23.18 |



Analysis of Ginseng Saponins Extract on Opalshell C18

HPLC Column, Sepax, Opalshell-C18, 2.6 μm , 90 Å 4.6 x 50 mm
(PN: 104182-4605)



Ginseng Saponins Extract Analysis on OpalShell-C18

Column: OpalShell-C18 (2.6 μm , 90 \AA , 4.6 x 50 mm) Column temperature: 25°C

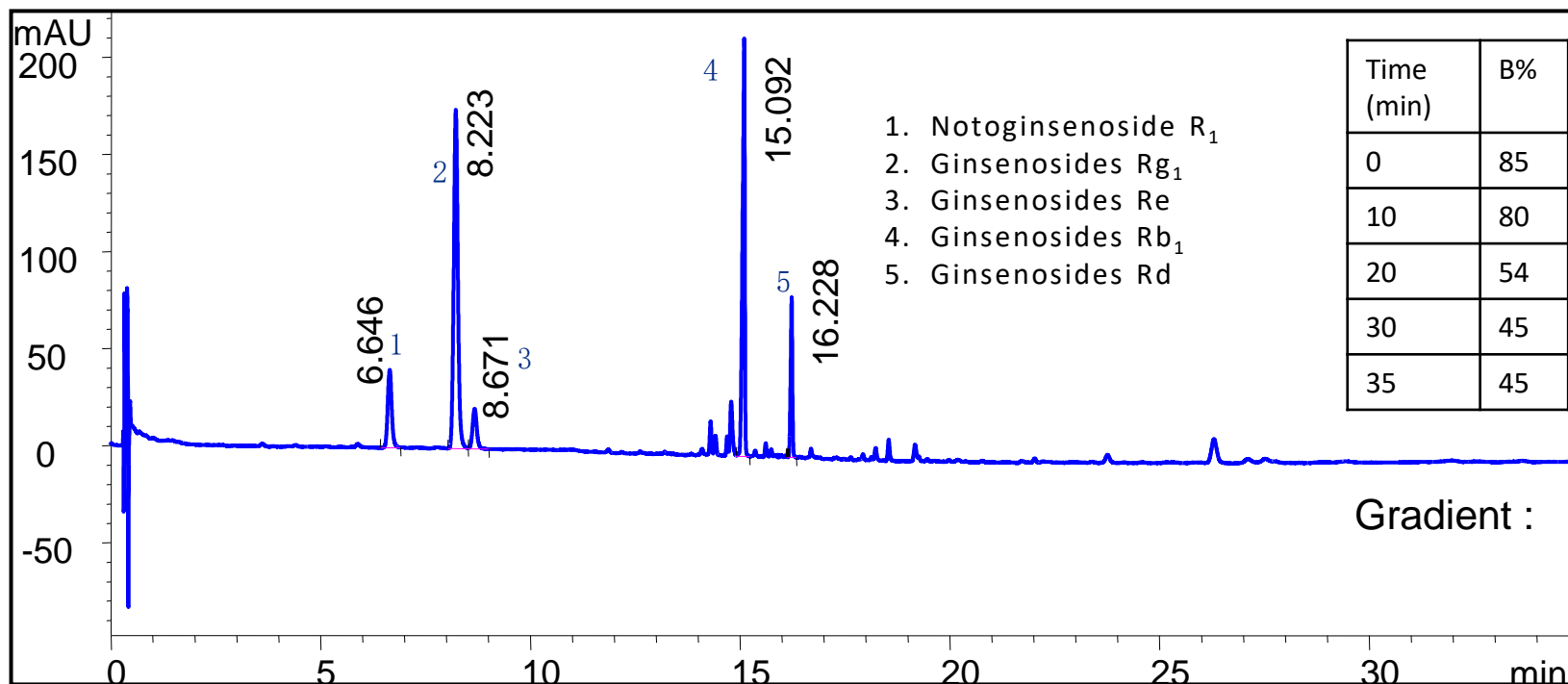
Mobile phase: A: ACN; B: H₂O

Flow rate: 1.5 mL/min

Detector: UV 203 nm

Injection volume: 10 μL

Sample: 2.5 mg/mL (diluted by 70% methanol)



| Compound Name | RT [min] | Height | Area | Area% | Plates | Tailing | Resolution |
|---------------|----------|--------|------|-------|--------|---------|------------|
| | 6.65 | 40 | 269 | 10.03 | 24469 | 1.13 | |
| | 8.22 | 174 | 1199 | 44.72 | 35078 | 1.09 | 9.11 |
| | 8.67 | 21 | 148 | 5.52 | 36622 | 1.05 | 2.51 |
| | 15.09 | 202 | 826 | 30.79 | 371096 | 0.69 | 45.72 |
| | 16.23 | 82 | 240 | 8.95 | 762570 | 0.83 | 13.08 |



Ginseng Saponins Extract Analysis – Competition Comparison

Column: Sepax Opalshell-C18 (2.6 μ m, 4.6 x 50 mm)

Agilent Poroshell 120 C18 (2.7 μ m, 4.6 x 50 mm)

Mobile phase: A: ACN; B: H₂O

Flow rate: 1.5 mL/min

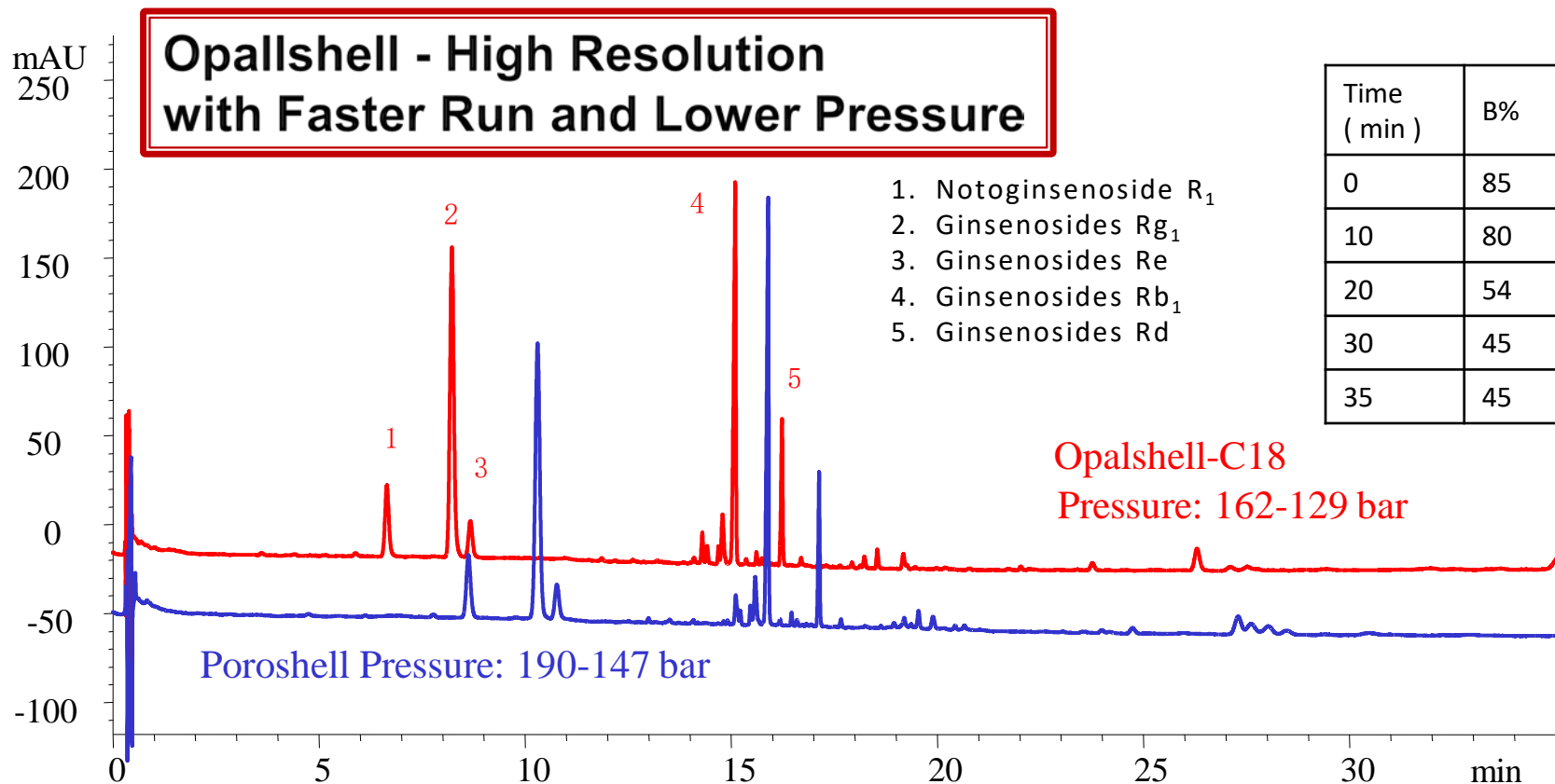
Detector: UV 203 nm

Column temperature: 25°C

Injection volume: 10 μ L

Sample: 2.5 mg/mL diluted by 70% methanol

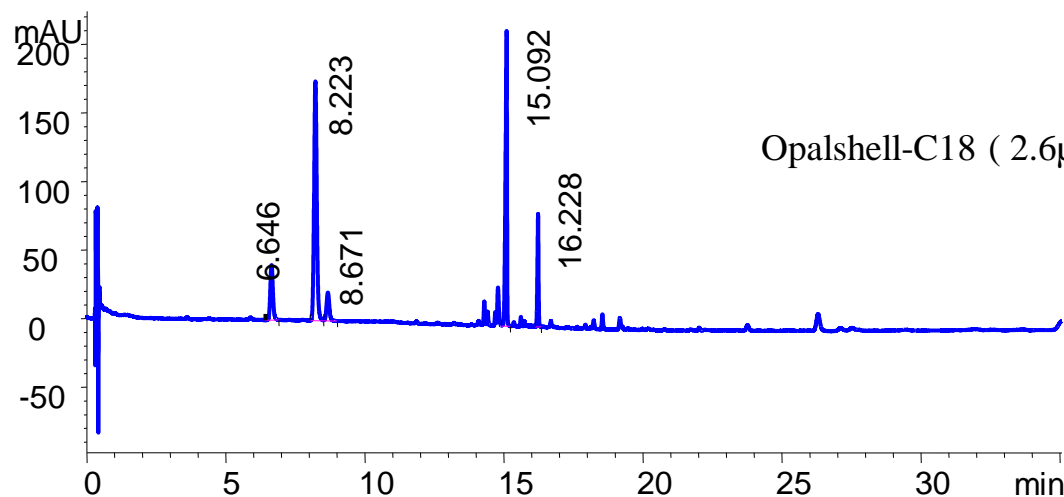
Instrument: HPLC



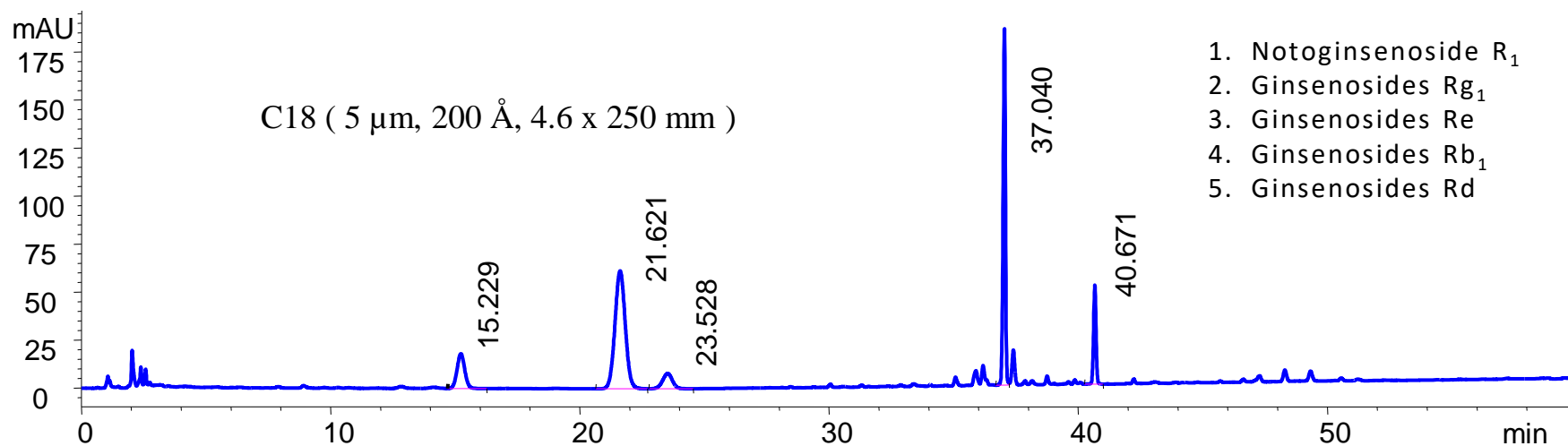
Disclaimer: Agilent and Poroshell are registered trademarks of Agilent Technologies; Comparative separations may not be representative of all applications.



Ginseng Saponins Extract Analysis on OpalShell vs. 5 μm C18



Opalshell
High Resolution
Faster Run
Lower Pressure



1. Notoginsenoside R₁
2. Ginsenosides Rg₁
3. Ginsenosides Re
4. Ginsenosides Rb₁
5. Ginsenosides Rd



Ginseng Saponins Extract Analysis on 5 μm C18

Column: C18 (5 μm , 200 \AA , 4.6 x 250 mm)

Mobile phase: A: ACN; B: H₂O

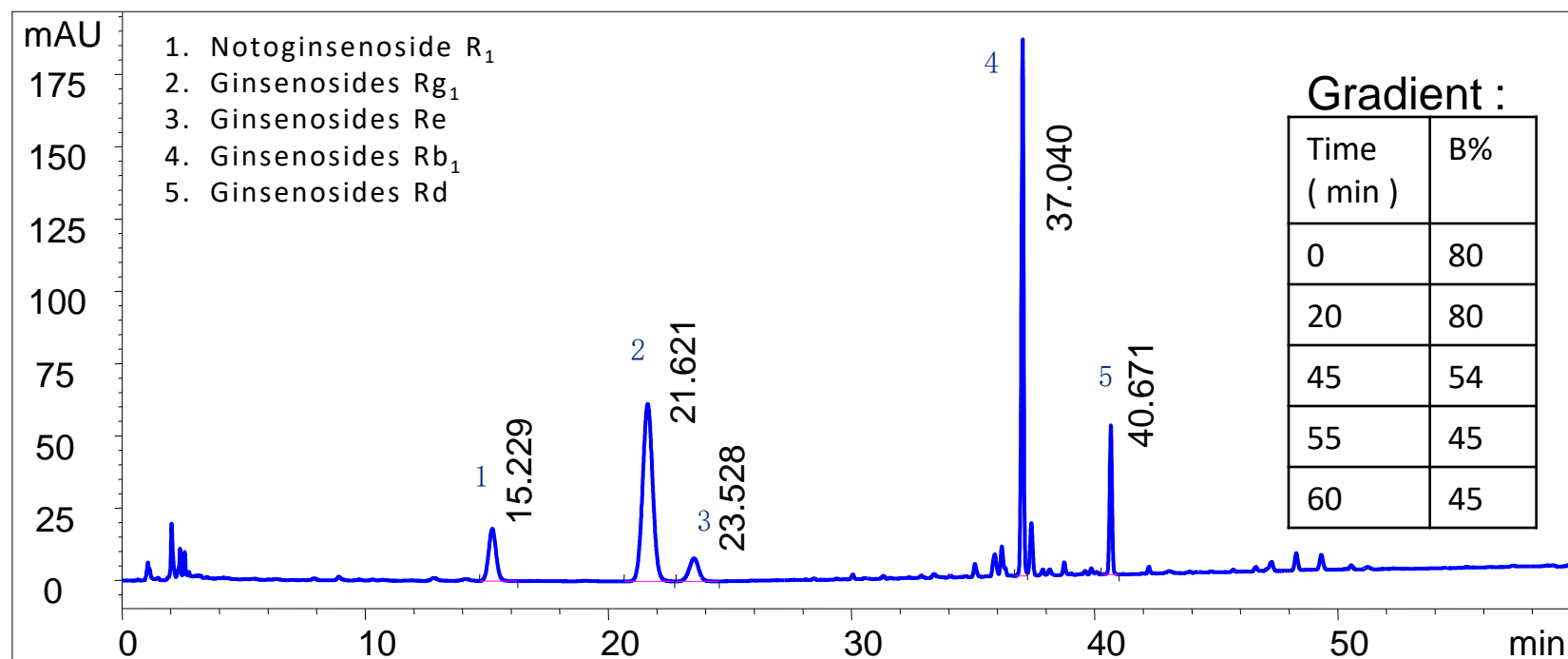
Flow rate: 1.5 mL/min

Detector: UV 203 nm

Column temperature: 25°C

Injection volume: 10 μL ,

Sample: 2.5 mg/mL diluted by 70% methanol



| Compound Name | RT [min] | Height | Area | Area% | Plates | Tailing | Resolution |
|---------------|----------|--------|------|-------|--------|---------|------------|
| | 15.23 | 18 | 390 | 9.87 | 11795 | 1.05 | |
| | 21.62 | 61 | 1771 | 44.84 | 13109 | 1.03 | 9.70 |
| | 23.53 | 8 | 218 | 5.53 | 17663 | 0.97 | 2.60 |
| | 37.04 | 184 | 1211 | 30.65 | 745752 | 1.31 | 30.67 |
| | 40.67 | 51 | 360 | 9.11 | 780917 | 0.96 | 20.38 |



Prednisolone Acetate Analysis on Opalshell C18

HPLC Column, Sepax, Opalshell-C18, 2.6 μm , 90 Å 4.6 x 100 mm
(PN: 104182-4610)



Prednisolone Acetate Analysis on Opalshell C18

Column: Opalshell C18 (2.6 μ m, 4.6 x 100 mm)

Mobile phase: ACN : H₂O= 35 : 65 (v/v)

Flow rate: 1.0 mL/min

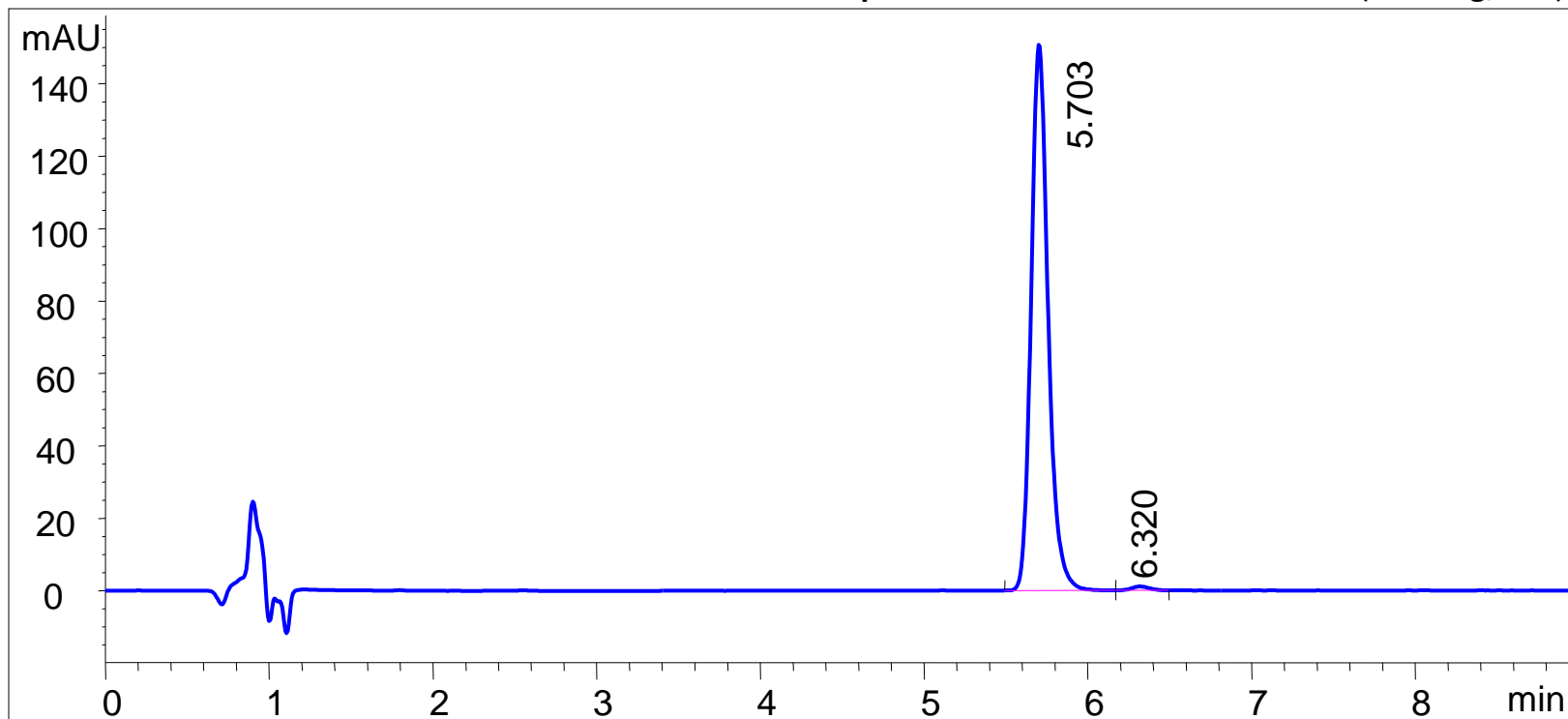
Detector: 246 nm

Column temperature: Ambient

Pressure: 175 bar

Injection volume: 10 μ L

Sample: Prednisolone Acetate Tablets (0.05mg/mL)



| Compound Name | RT [min] | Height | Area | Area% | Plates | Tailing | Resolution |
|---------------|----------|--------|------|--------|--------|---------|------------|
| | 5.703 | 151 | 1092 | 99.122 | 15359 | 1.24 | |
| | 6.320 | 1 | 10 | 0.878 | 15031 | 1.06 | 3.16 |



Prednisolone Acetate Analysis on a 5 μ m C18

Column: C18 (5 μ m, 4.6 x 250 mm)

Mobile phase: ACN : H₂O= 35 : 65 (v/v)

Flow rate: 1.0 mL/min

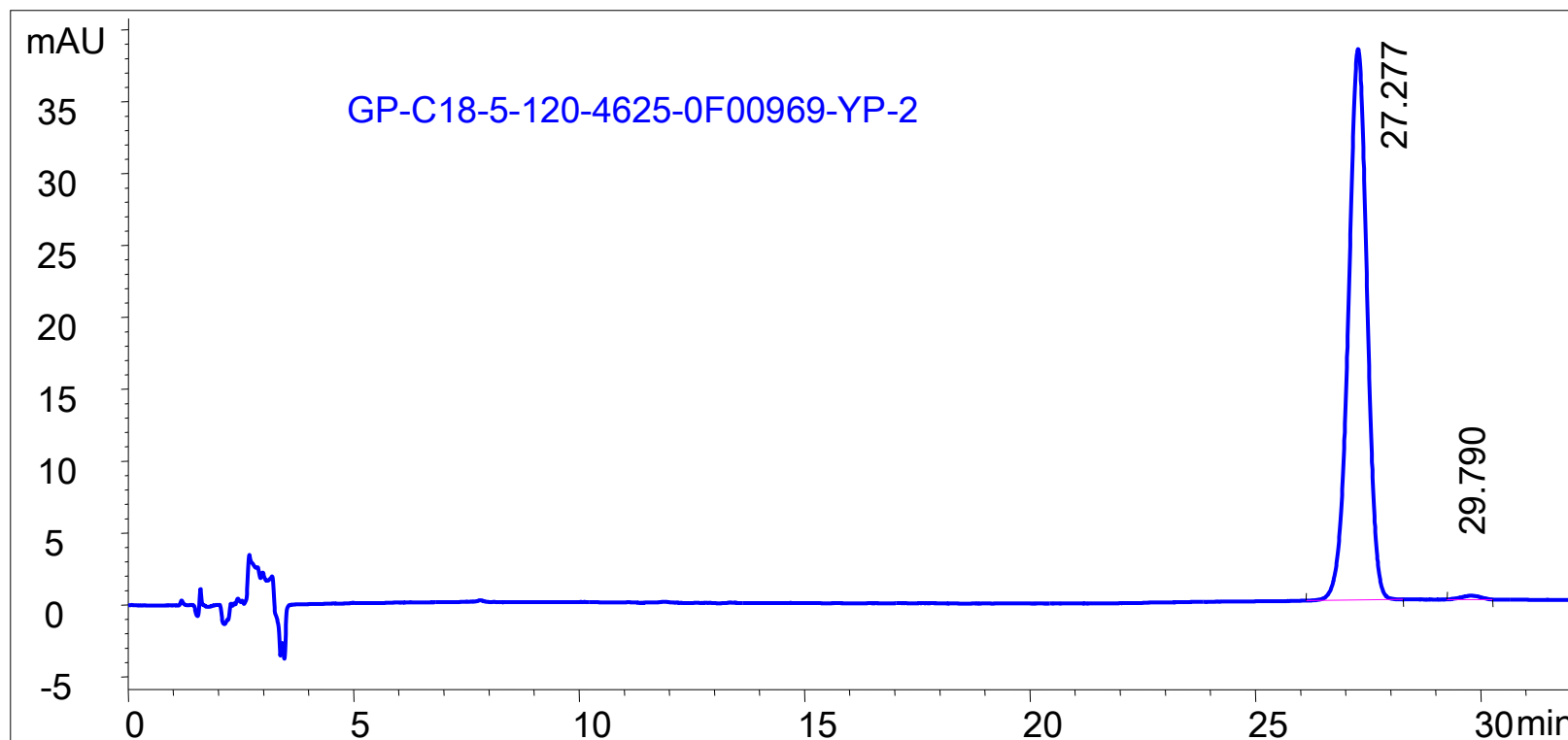
Detector: 246 nm

Column temperature: Ambient

Pressure: 137 bar

Injection volume: 10 μ L

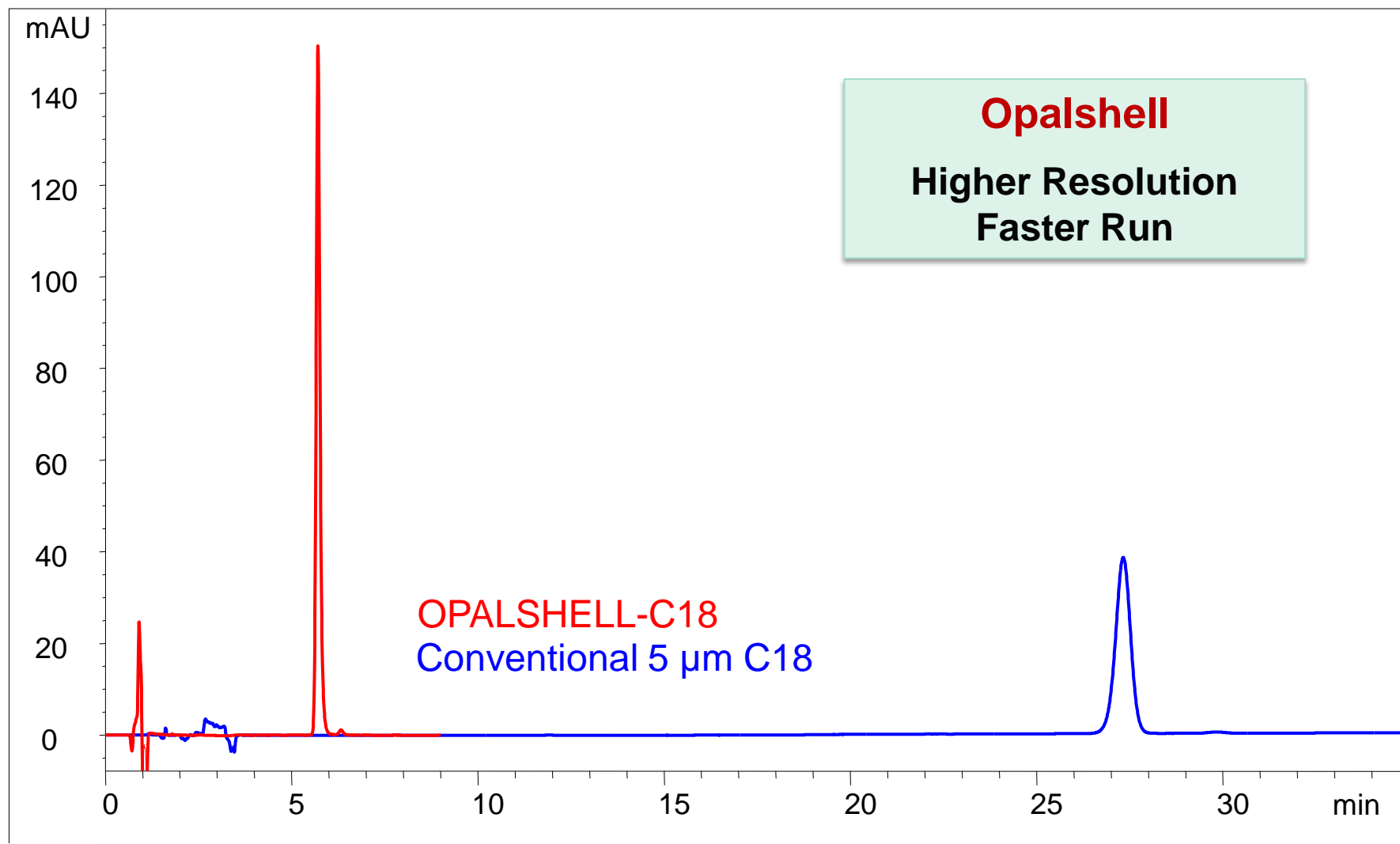
Sample: Prednisolone Acetate Tablets (0.05mg/mL)



| Compound Name | RT [min] | Height | Area% | Area | Plates | Tailing | Resolution |
|---------------|----------|--------|--------|------|--------|---------|------------|
| | 27.28 | 38 | 99.284 | 1103 | 20977 | 0.95 | |
| | 29.79 | 0 | 0.716 | 8 | 21050 | 0.89 | 3.19 |



Overlay of Prednisolone Acetate Analysis on Opalshell vs. Conventional 5 μm C18



Opalshell
Higher Resolution
Faster Run

OPALSHELL-C18
Conventional 5 μm C18



HPLC Analysis of API Crude Sample on Opalshell-C18

HPLC Column, Sepax, Opalshell-C18, 2.6 μm , 90 Å 4.6 x 50 mm
(PN: 104182-4605)



HPLC Analysis of API Crude Sample by Opalshell C18

OPALO1001

Column: Opalshell-C18 (2.6 μm , 90 \AA , 4.6 x 50mm)

Mobile phase: A: 0.1% HAc in Water, B: CAN

Flow rate: 1.0 mL/min

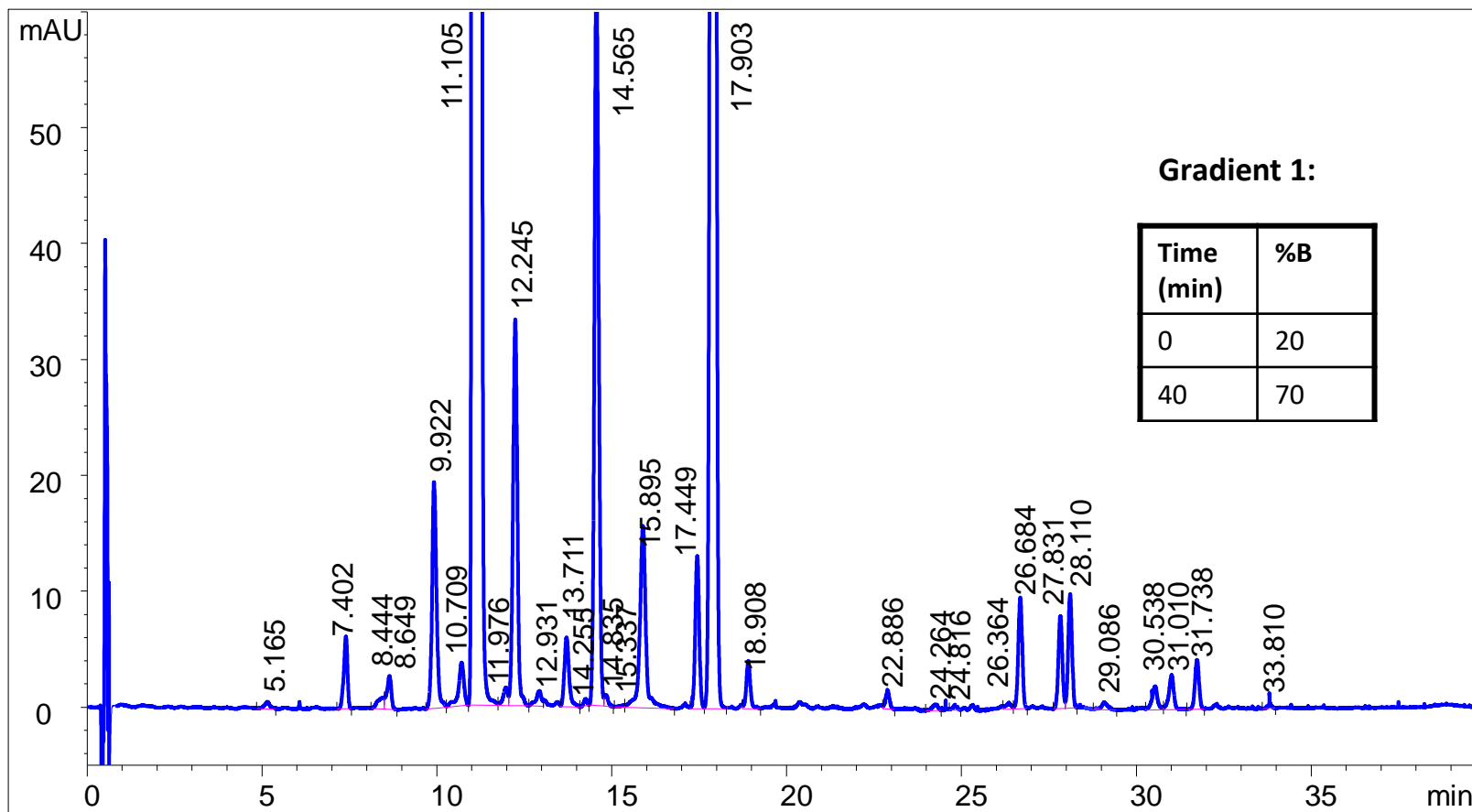
Detector: UV 254 nm

Column temperature: Room Temperature

Injection volume: 20 μL

Sample: 1 mg/mL CN1 in Methanol

Pressure: 105-65 bar



HPLC Analysis of API Crude Sample by a Conventional 5 μm C18

Column: C18 (5 μm , 120 \AA , 4.6 x 250mm)

Mobile phase: A: 0.1% HAc in Water, B: ACN

Flow rate: 1.0 mL/min

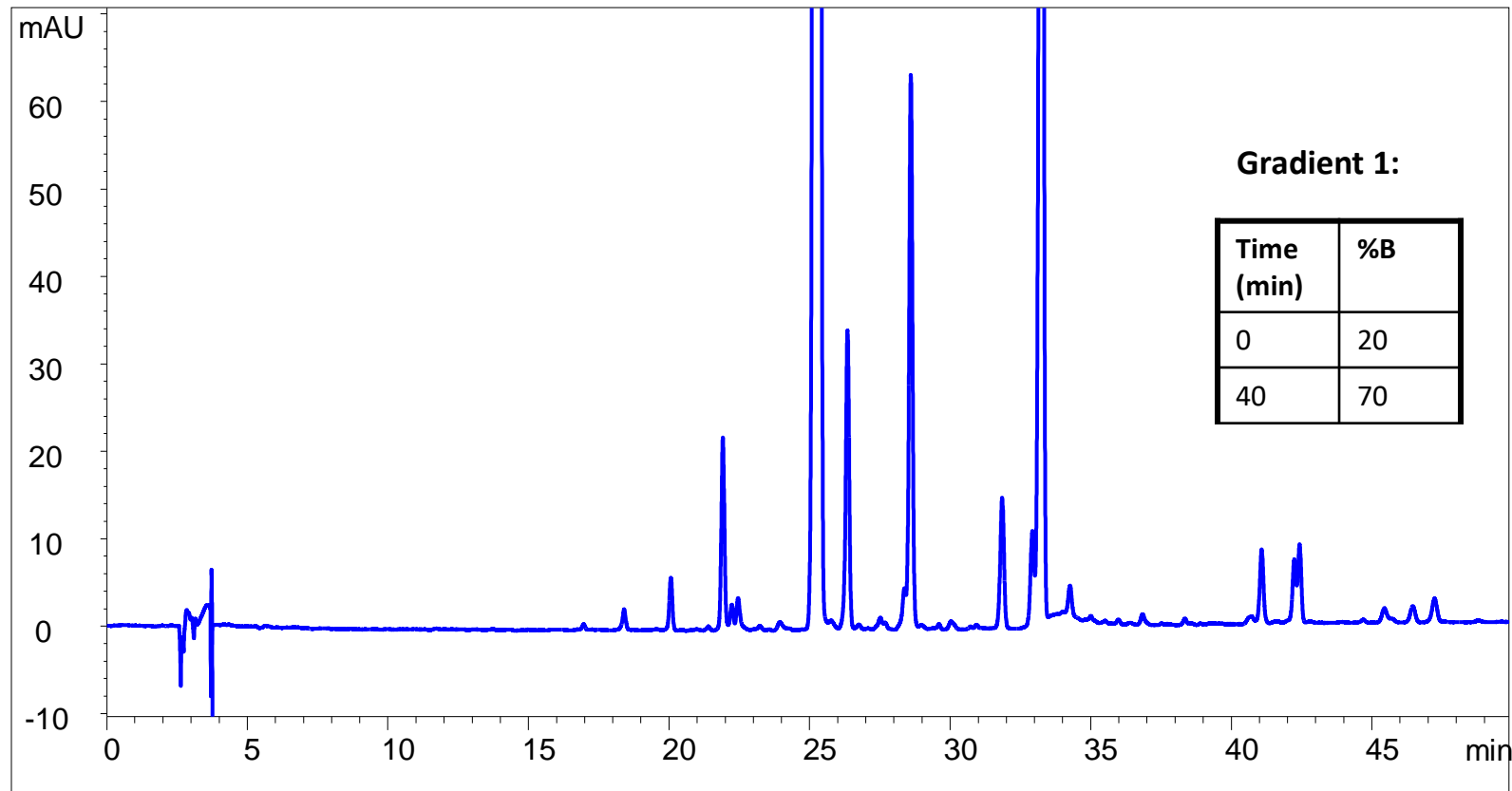
Detector: UV 254 nm

Column temperature: Room Temperature

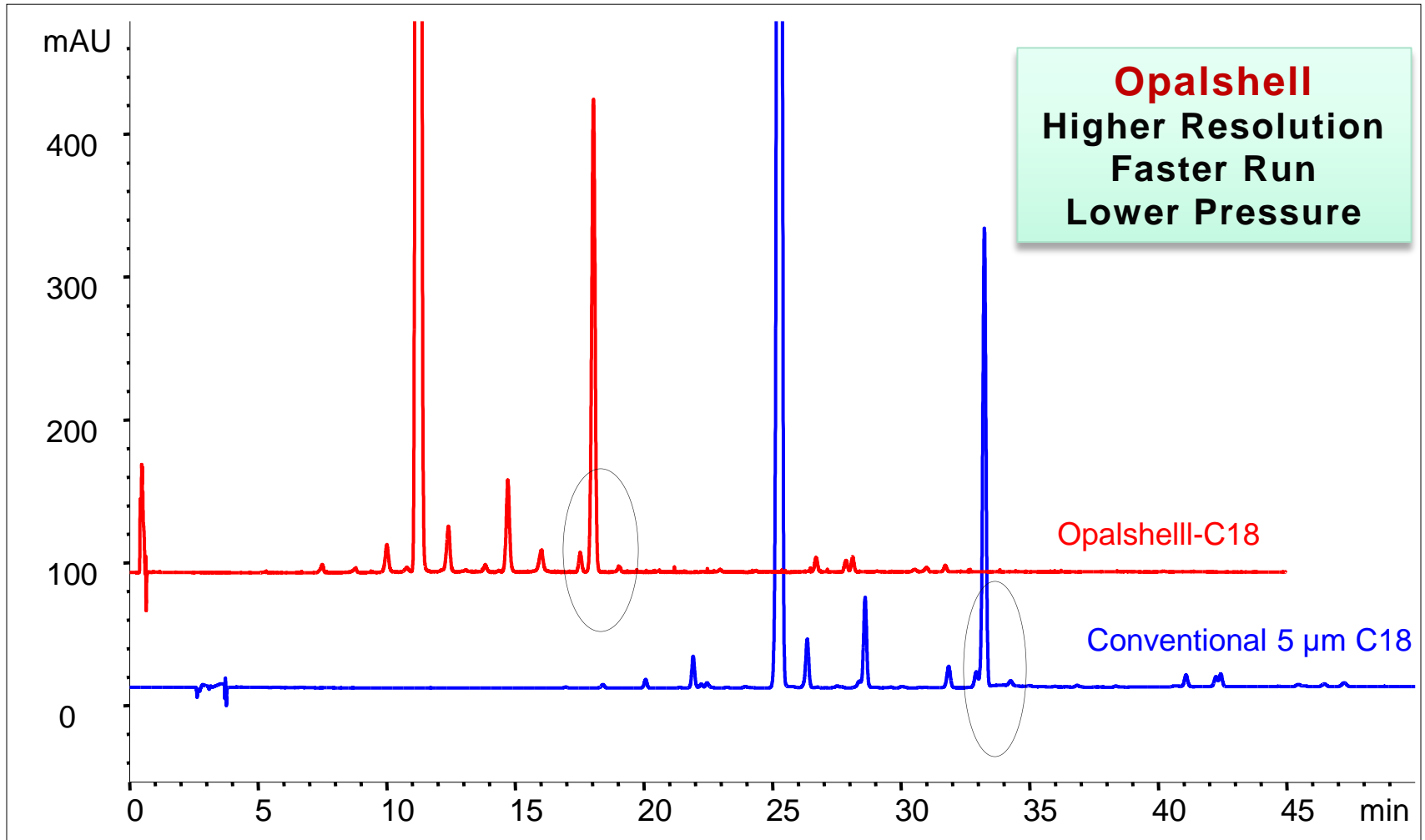
Injection volume: 20 μL

Sample: 1 mg/mL CN1 in Methanol

Pressure: 130-85 bar



Overlays of API Crude Sample Analysis by Opalshell C18 vs a Conventional 5 μm C18



Progesterone Analysis on Opalshell-C18

HPLC Column, Sepax, Opalshell-C18, 2.6 μm , 90 Å 4.6 x 50 mm
(PN: 104182-4605)



Progesterone Analysis on Opalshell-C18 ^{OPALP1001}

Column: Opalshell-C18 (2.6 μ m, 4.6 x 50 mm)

Column temperature: 30°C

Mobile phase: A: H₂O, B: ACN, C: MeOH (v/v)

Pressure: 120 bar

Flow rate: 1.0 mL/min

Injection volume: 10 μ L, **Sample:** system

Detector: UV 241 nm

suitability solution (0.5 mg/mL)

