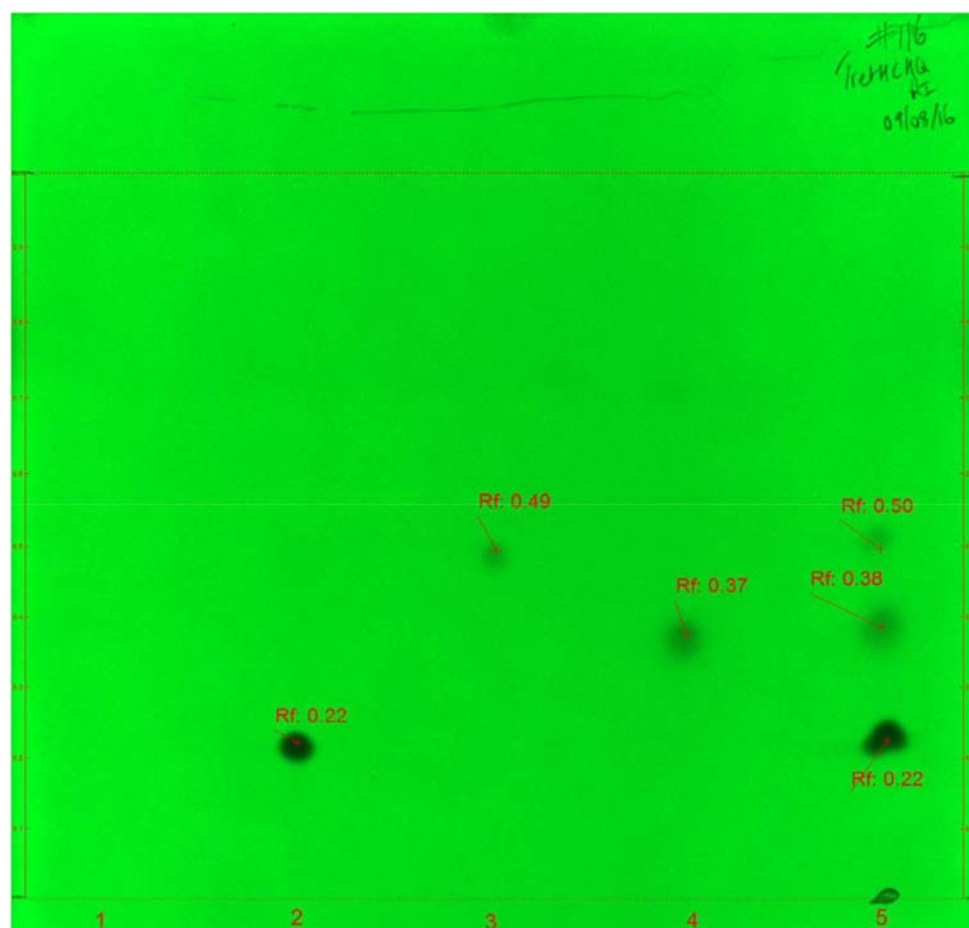




Tretinoin, Hydroquinone and Hydrocortisone Cream – BP 2018

These chromatograms are provided for information only as an aid to analysts and are intended as guidance for the interpretation and application of BP monographs.

Typical chromatogram for the Identification test for Tretinoin, Hydroquinone and Hydrocortisone Cream by Thin Layer Chromatography as published in BP 2018.

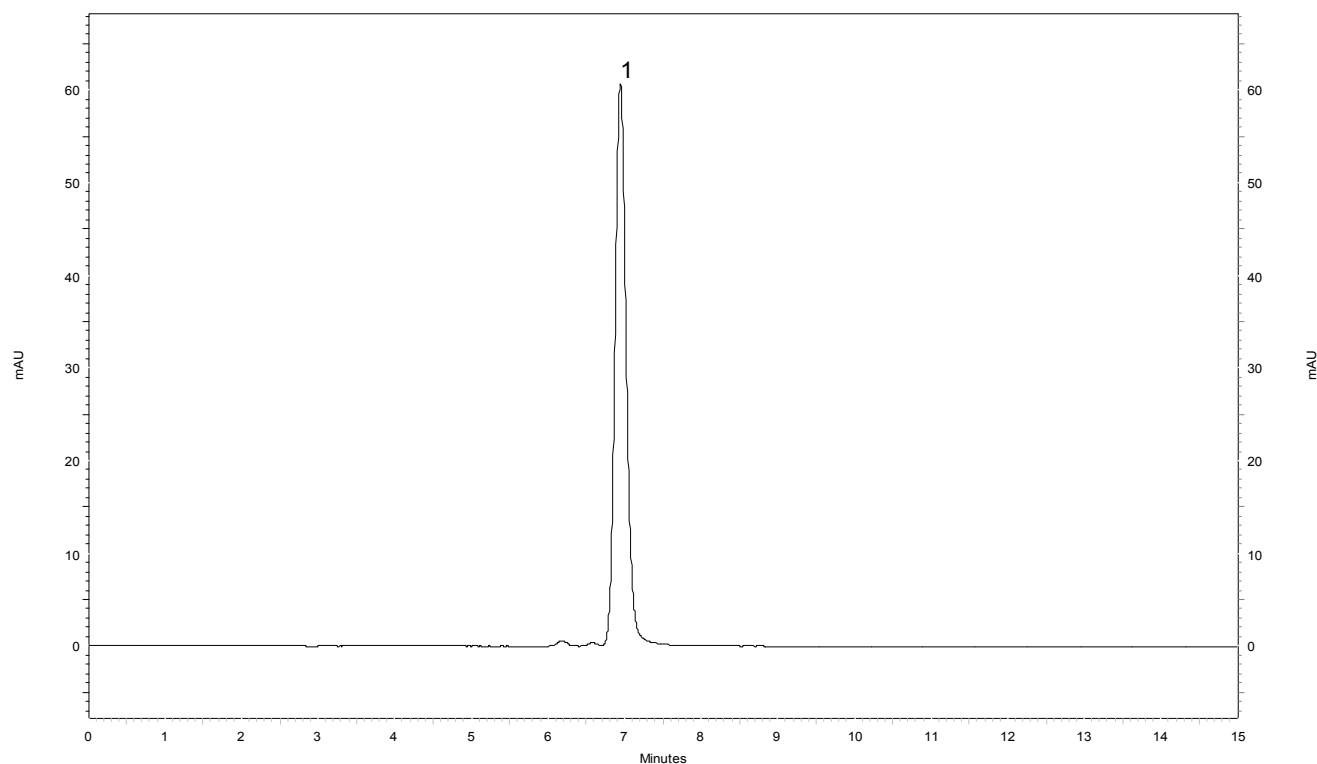


- | | |
|---|---|
| 1 | Blank |
| 2 | 0.25 % w/v hydrocortisone standard |
| 3 | 0.01 % w/v tretinoin standard |
| 4 | 0.5 % w/v hydroquinone standard |
| 5 | Sample solution (0.25 % w/v hydrocortisone, 0.01 % w/v tretinoin, 0.5 % w/v hydroquinone) |



TLC plate	Merck TLC silica gel 60 F254 Plate, 10 cm × 20 cm
Plate preconditioning	N/A
Diluent	Methanol
Mobile Phase	Dichloromethane: ether: methanol: water (77:15:8:1.2 v/v/v/v)
Mobile Phase volume	100 mL
Band application	3 mm band size with a spotting volume of 10 µL
Chamber saturation	Minimum 60 minutes at room temperature
Development	15 cm
Development time	35 minutes
Drying time	10 minutes in air
Derivatisation	N/A
Visualisation	UV light (254 nm)

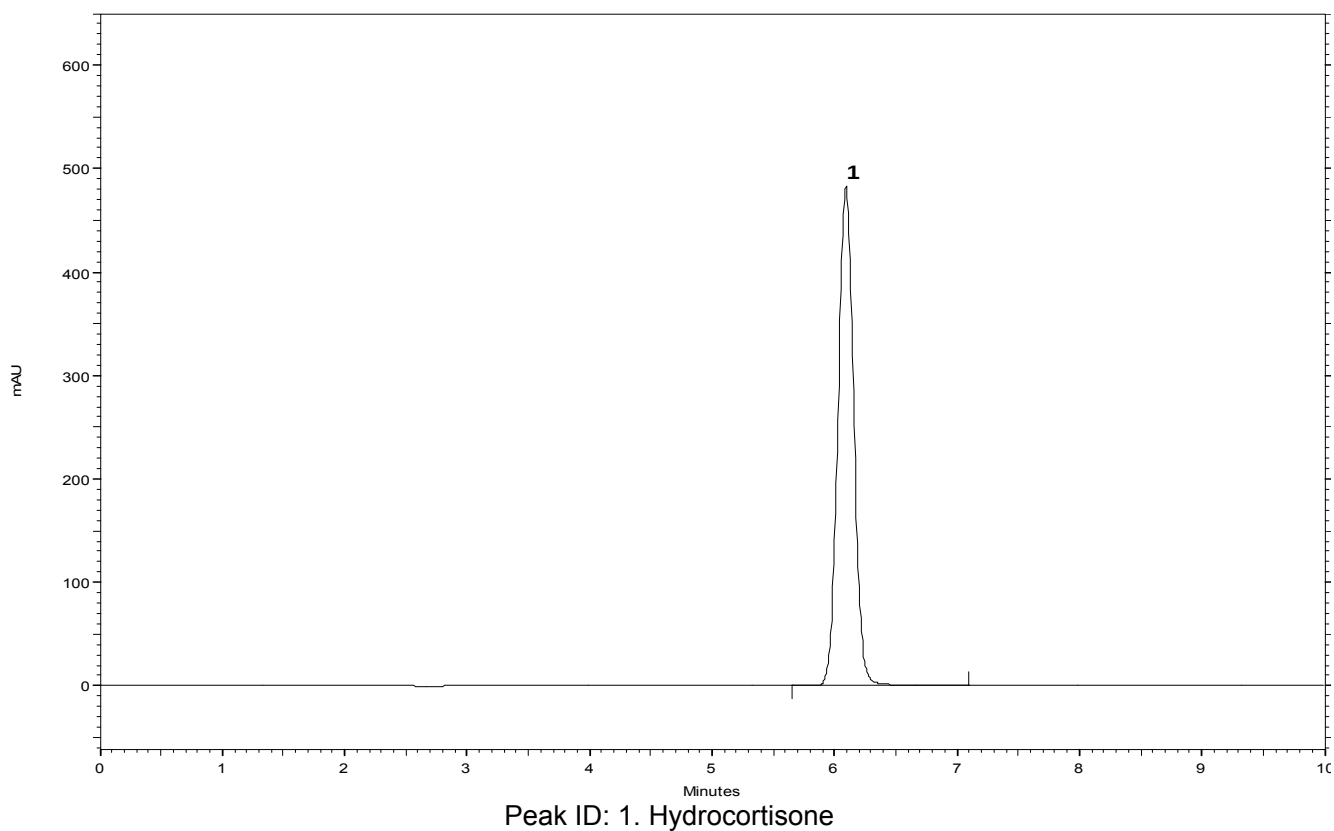
Typical chromatogram for solution (2) in the Tretinoin Assay for Tretinoin, Hydroquinone and Hydrocortisone Cream as published in BP 2018.



Peak ID: 1. Tretinoin

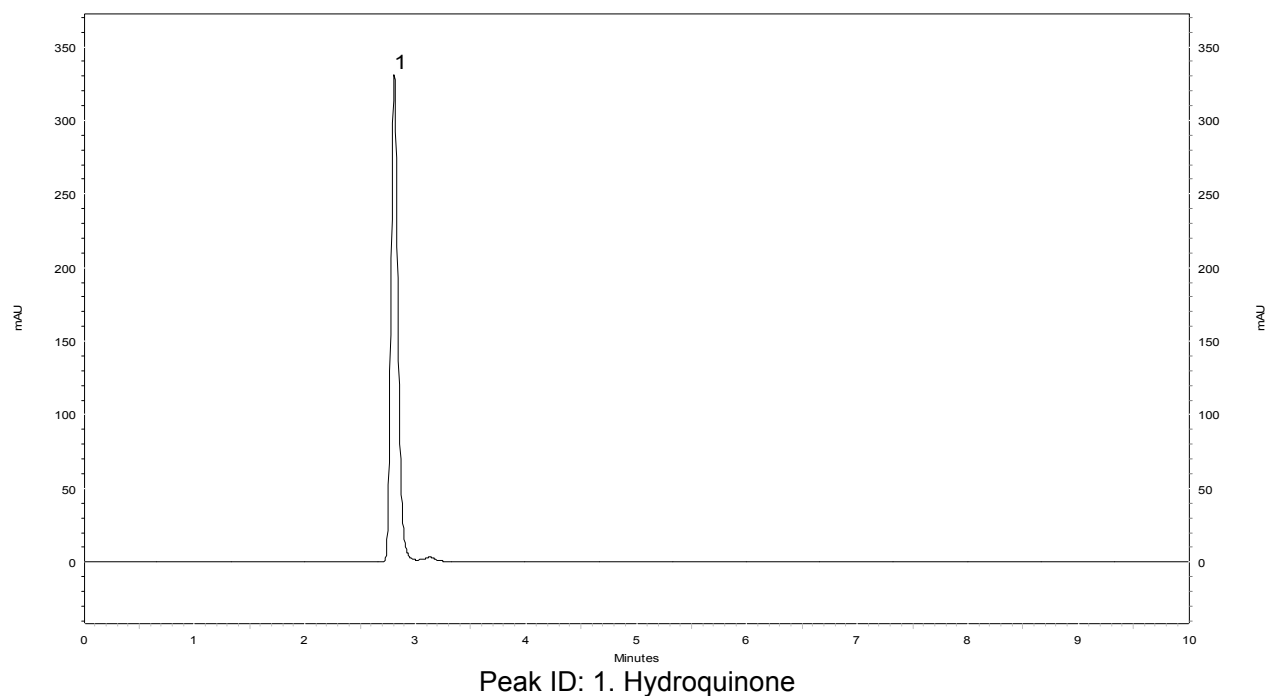
Column	: Waters Spherisorb ODS 1 (250 mm x 4.6 mm, 5 μ m)
Method Ref.	: Assay for Hydrocortisone for the Tretinoin, Hydroquinone and Hydrocortisone Cream BP monograph from BP 2018
Mobile Phase	: 1 g tetramethylammonium hydrogen sulfate dissolved in 100 mL water and added to 900 mL of methanol.
Diluent	: Methanol
Flow Rate	: 1.0 mL/min
Column Temp	: 25°C
Injection Volume	: 20 μ L
Detection	: UV, 350 nm

Typical chromatogram for solution (2) in the Hydrocortisone Assay for Tretinoin, Hydroquinone and Hydrocortisone Cream as published in BP 2018.



Column	: Waters, Spherisorb ODS 2 (250 mm x 4.6 mm, 5 µm)
Method Ref.	: Assay for Hydrocortisone for the Tretinoin, Hydroquinone and Hydrocortisone Cream BP monograph from BP 2018
Mobile Phase	: Methanol: acetonitrile: 0.1 % w/v orthophosphoric acid (11:35:54, v/v/v)
Diluent	: Methanol
Flow Rate	: 1.0 mL/min
Column Temp	: 25°C
Injection Volume	: 20 µL
Detection	: UV, 238 nm

Typical chromatogram for solution (2) in the Hydroquinone Assay for Tretinoin, Hydroquinone and Hydrocortisone Cream as published in BP 2018.



Column	: Waters Spherisorb ODS 1 (250 mm x 4.6 mm, 5 µm)
Method Ref.	: Assay for Hydrocortisone for the Tretinoin, Hydroquinone and Hydrocortisone Cream BP monograph from BP 2018
Mobile Phase	: Methanol: water (9:1, v/v)
Diluent	: Mobile phase
Flow Rate	: 1.0 mL/min
Column Temp	: 25°C
Injection Volume	: 20 µL
Detection	: UV, 295 nm