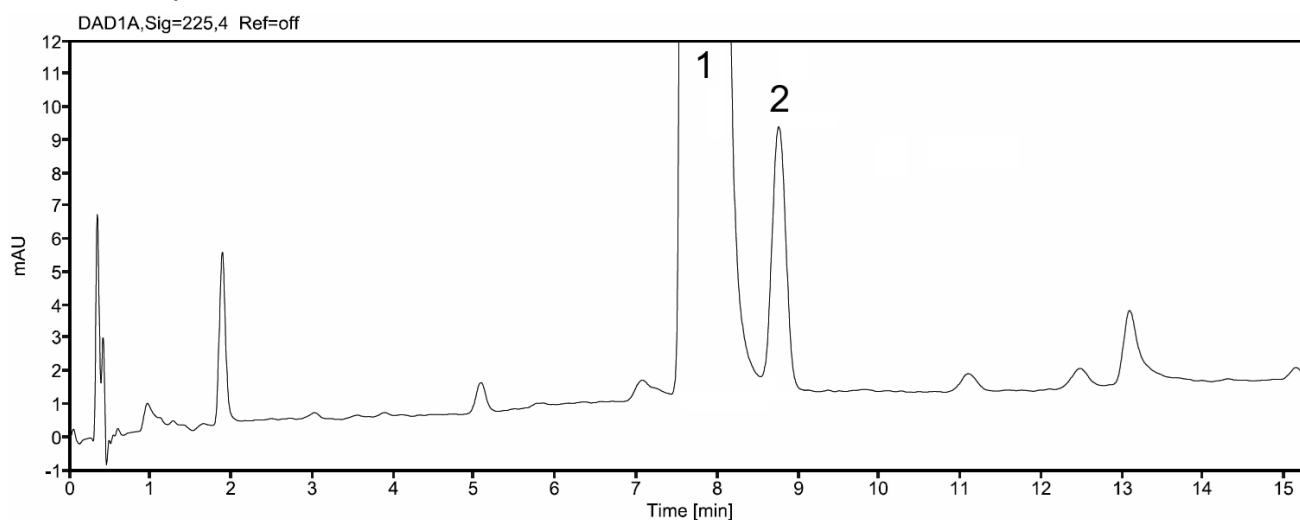




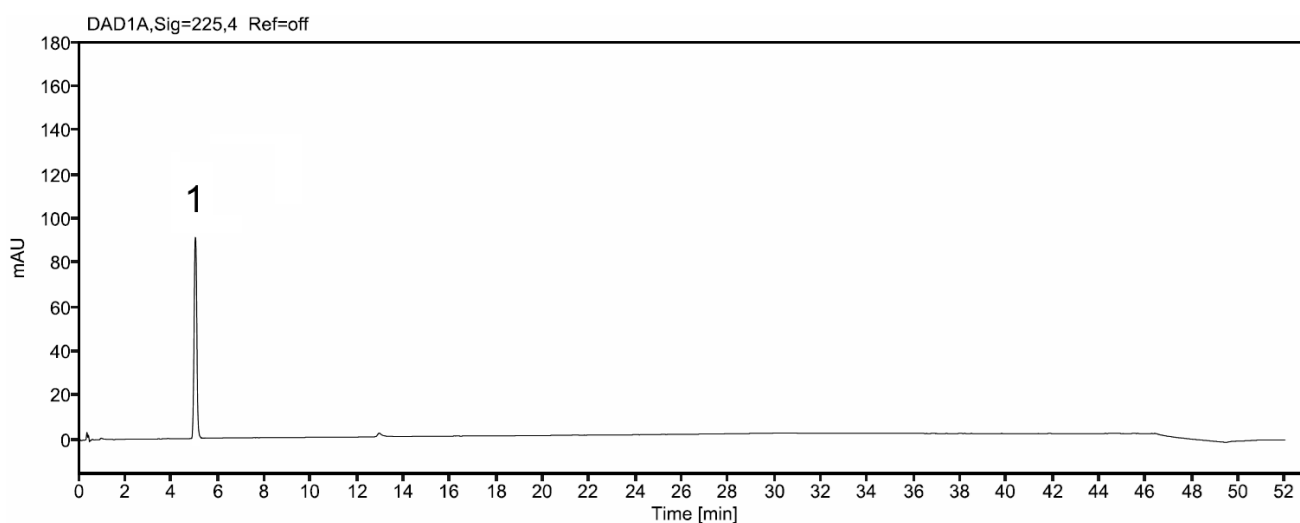
Melatonin Oral Solution – BP 2027

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 solution (5) from the Related Substances test for Melatonin Oral Solution as published in BP 2027.



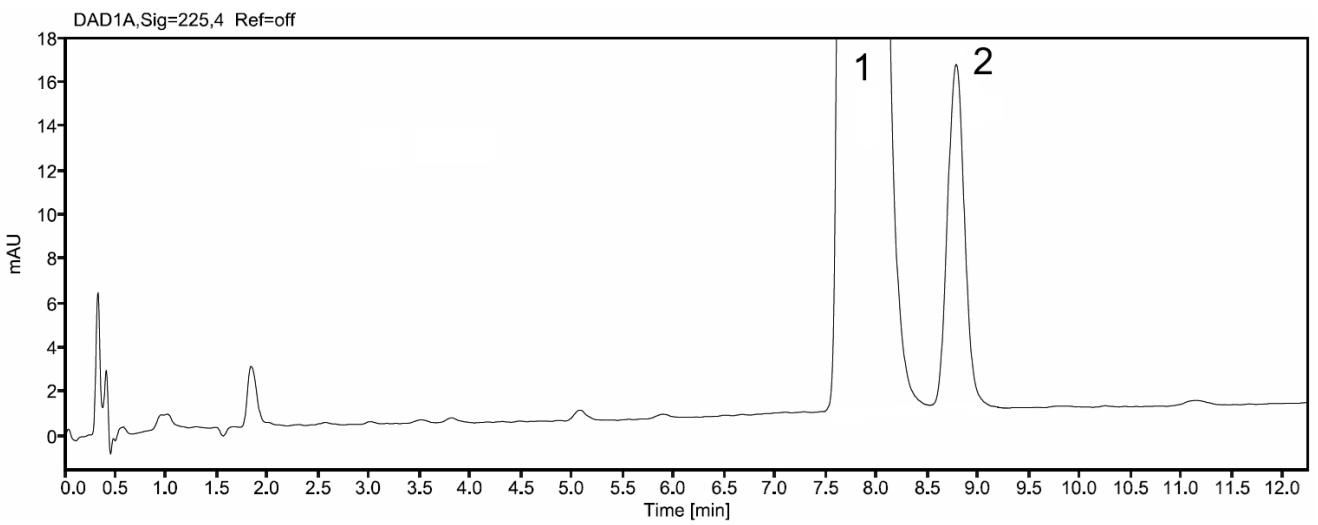
Peak ID: 1: Melatonin. 2: Impurity D.



Peak ID: 1: AFMK.

Column	Eclipse Plus C18 (50 mm x 4.6 mm, 1.8 μm)		
Method Ref.	Related Substances for the Melatonin Oral Solution monograph from BP 2027		
Buffer	2.45 g/L potassium dihydrogen orthophosphate adjusted to pH 3.0 with 85% orthophosphoric acid		
Mobile Phase A	Buffer		
Mobile Phase B	Acetonitrile		
Diluent	Acetonitrile: water (20:80, v/v)		
Flow rate	1.5 mL/min		
Column Temp	25°C		
Injection Volume	10 μL		
Detection	225 nm		
Gradient			
Time (minutes)	Mobile phase A (% v/v)	Mobile phase B (% v/v)	Comment
0 – 30	90 → 70	10 → 30	linear gradient
30 – 46	70 → 30	30 → 70	linear gradient
46 – 49	30 → 90	70 → 10	linear gradient
49 – 52	90	10	re-equilibration

Typical chromatogram for solution (3) from the Assay test for Melatonin Tablets as published in BP 2027.



Peak ID: 1: Melatonin. 2: Impurity D.

Column	Eclipse Plus C18 (50 mm x 4.6 mm, 1.8 μm)		
Method Ref.	Assay for the Melatonin Oral Solution monograph from BP 2027		
Buffer	2.45 g/L potassium dihydrogen orthophosphate adjusted to pH 3.0 with 85% orthophosphoric acid		
Mobile Phase A	Buffer		
Mobile Phase B	Acetonitrile		
Diluent	Acetonitrile: water (20:80, v/v)		
Flow rate	1.5 mL/min		
Column Temp	25°C		
Injection Volume	10 μL		
Detection	225 nm		
Gradient			
Time (minutes)	Mobile phase A (% v/v)	Mobile phase B (% v/v)	Comment
0 – 30	90 → 70	10 → 30	linear gradient
30 – 46	70 → 30	30 → 70	linear gradient

46 – 49	30 → 90	70 → 10	linear gradient
49 – 52	90	10	re-equilibration