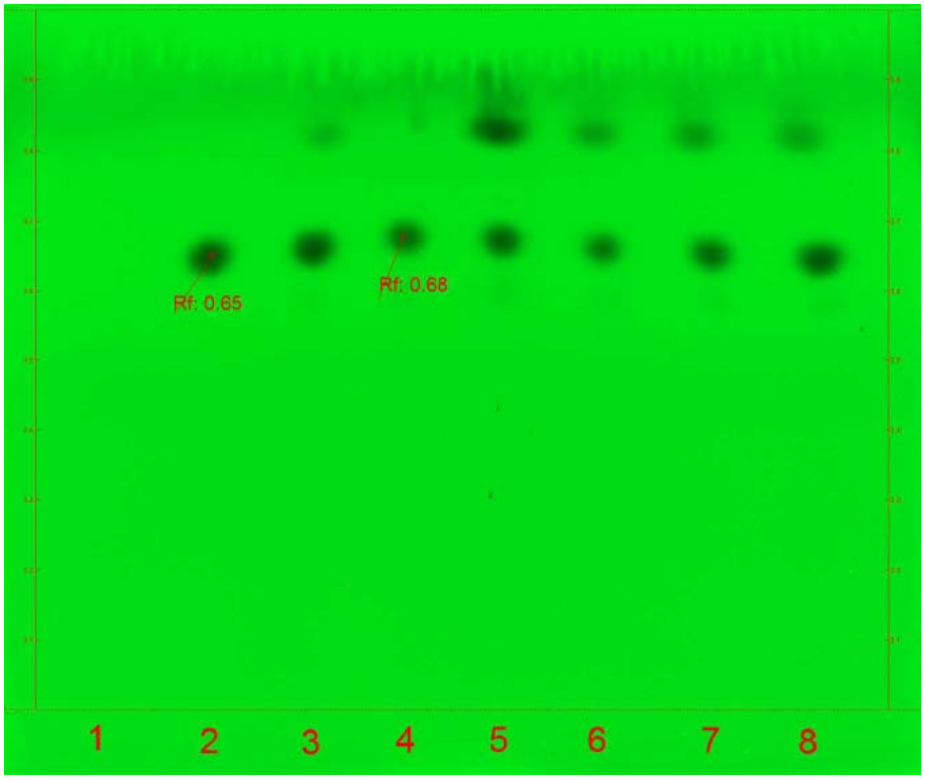
Diltiazem Oral Suspension – BP 2020

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.

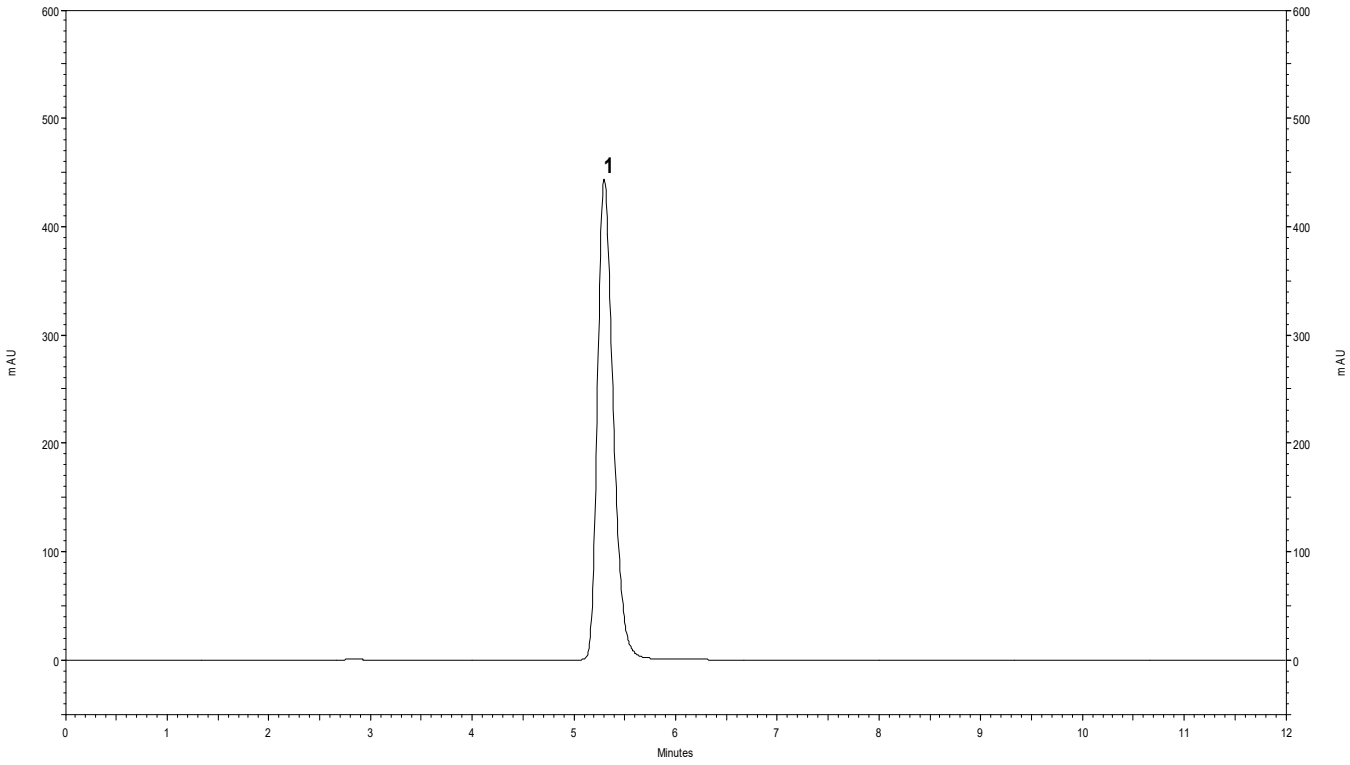
Typical chromatogram for the Identification test for Diltiazem Oral Suspension by Thin Layer Chromatography as published in BP 2020.



1	Blank
2	0.2 % w/v diltiazem hydrochloride
3	System suitability solution
4-8	Oral suspension 0.2 % w/v solution

TLC plate	Merck TLC silica gel 60 F_{254} Plate, 20 cm × 20 cm
Plate preconditioning	N/A
Diluent	Dichloromethane
Mobile Phase	5 M acetic acid : water : dichloromethane : absolute ethanol (1:6:20:24, 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	150 mm
Development time	177 minutes
Drying time	A few minutes in air
Derivatisation	N/A
Visualisation	Developed plate examined under UV light (254 nm)

Typical chromatogram for solution (2) in the Assay test for Diltiazem Oral Suspension as published in BP 2020.



Peak ID: 1: Diltiazem hydrochloride

Column	:	Waters, µBondapak C18 (250 mm x 4.6 mm, 10 µm)
Method Ref.	:	Assay for the Diltiazem Oral Suspension monograph from BP 2020
Mobile Phase	:	Buffer : methanol : acetonitrile (25:25:50, v/v/v)
Buffer	:	0.116 % w/v (1S)-(+)-10-camphorsulfonic acid in 0.1M sodium acetate, adjusted to pH 6.2 with 0.1M sodium hydroxide
Diluent	:	Mobile phase
Flow rate	:	1.5 mL/min
Column Temp	:	25 °C
Injection Volume	:	20 µL
Detection	:	240 nm