

An improved fast UHPLC method for reaction monitoring of fexofenadine using  
Accucore PFP Column

Application #569

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## An improved fast UHPLC method for reaction monitoring of fexofenadine using Accucore PFP Column

### General Information

Market: Pharmaceutical

Matrix: Standard

Instrument type: UHPLC

### Description

Fexofenadine is an antihistamine pharmaceutical drug used in the treatment of hay fever, allergy symptoms, and urticaria. It was developed as a successor of an alternative to terfenadine, an antihistamine that caused QT interval, prolongation, potentially leading to cardiac arrhythmia. Fexofenadine, like other second- and third-generation antihistamines, does not readily cross the blood-brain barrier, and so causes less drowsiness than first-generation histamine-receptor antagonists. It works by being an antagonist to the H1 receptor.

Accucore HPLC columns use Core Enhanced Technology to facilitate fast and high efficiency separations. The 2.6 $\mu$ m diameter particles are not totally porous, but rather have a solid core and a porous outer layer. The optimised phase bonding creates a series of high coverage, robust phases.

## Method Details

### Instrument parameters

Instrument Parameter	Value
Run Time Length	16.004 min
Injection volume	8.0 µL
Tray temperature	15.0 °C
Oven Temperature	40.0 °C
Detection	UV 250.0 nm
Flow_Rate	0.800 ml/min
Eluent A for Pump	Buffer
Eluent B for Pump	Methanol:water::90:10
Mobile_Phase_A	Buffer
Mobile_Phase_B	Methanol : Water (90:10) (v/v)

## Gradient Details

Ret. Time [min]	Flow [ml/min]	%B [%]	%C [%]	%D [%]
0.000	0.800	28.0	0.0	0.0
4.000	0.800	65.0	0.0	0.0
12.000	0.800	65.0	0.0	0.0
14.000	0.800	28.0	0.0	0.0
16.000	0.800	28.0	0.0	0.0

## Column Details

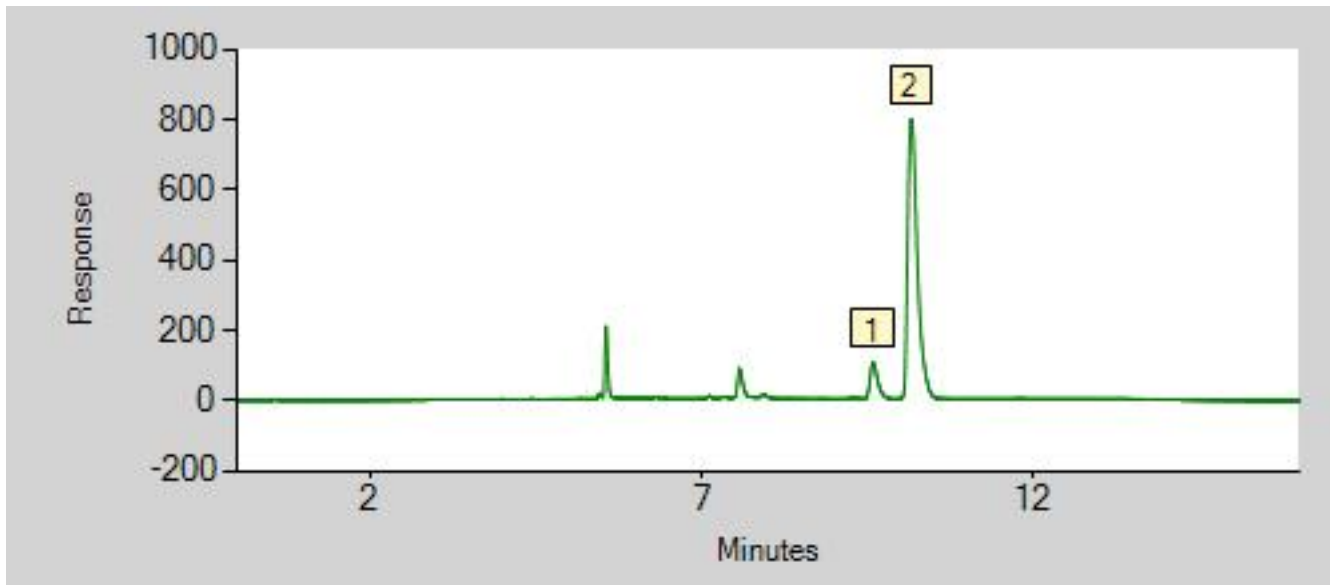
column_A	
Manufacturer	Thermo Fisher Scientific
Model	Accucore PFP
Diameter	3
Length	100
Particle Size	2.6
Packing Material	PFP

## System information

Instrument Type	UHPLC
Pump model	LPG-3400RS
Autosampler model	WPS-3000
UV Detector model	VWD-3400
Oven model	TCC-3000
UHPLC	Generic

## Results

### Channel UV\_VIS\_1



No	Peak_Name	*Compound _Class	Retention_Ti me	Peak_Area	Peak_Area_p c	Peak_Height	Peak_Height _pc	Plates_(USP)	Resolution_( USP)	Tailing_Facto r_(USP)
1	Meta Isomer of Fexofenadin e	Antihistamin e	9.583	13.399	9.13	101.937	11.36	35275	2.54	1.44
2	Fexofenadin e	Antihistamin e	10.158	133.330	90.87	795.195	88.64	26808	n.a.	1.70

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## Appendix

The application can be accessed at <http://dlibrary.dionex.com/Public/View.aspx?ApplicationID=569>

### Available Downloads

No downloads available.

### Related Information

No related information available.