

Comparison of a 5 μ m fully porous C8 column and an Accucore XL C8 column for
the USP analysis of Fenoprofen

Application #603

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General Information

Market: Pharmaceutical

Matrix: N/A

Instrument type: HPLC

Description

The USP monograph for Fenoprofen, requires an L7 column with 5µm packing. Typically, 5µm fully porous columns have been used for this analysis. However, according to the United States Pharmacopeia (USP) General Chapter Chromatography (621), "The particle size and/or the length of the column may be modified provided that the ratio of length (L) to particle size (dp) remains constant or varies not more than 25% with respect to the ratio obtained with the column prescribed in the monograph."

With this in mind, a solid core, Accucore XL C8, 4µm column would also be an excellent column choice, and a comparison between a fully porous column and the Accucore solid core column is demonstrated in this application.

Method Details

Instrument parameters

Instrument Parameter	Value
Run Time Length	12.000 min
Injection volume	10.0 µL
Wavelength 1	272.0 nm
Flow	2.000 ml/min
Eluent A for Pump	MeCN:water:OPA (50:49.6:0.4)

Gradient Details

Ret. Time [min]	Flow [ml/min]	%B [%]	%C [%]	%D [%]
0.000	2.000	0.0	0.0	0.0
12.000	2.000	0.0	0.0	0.0

Column Details

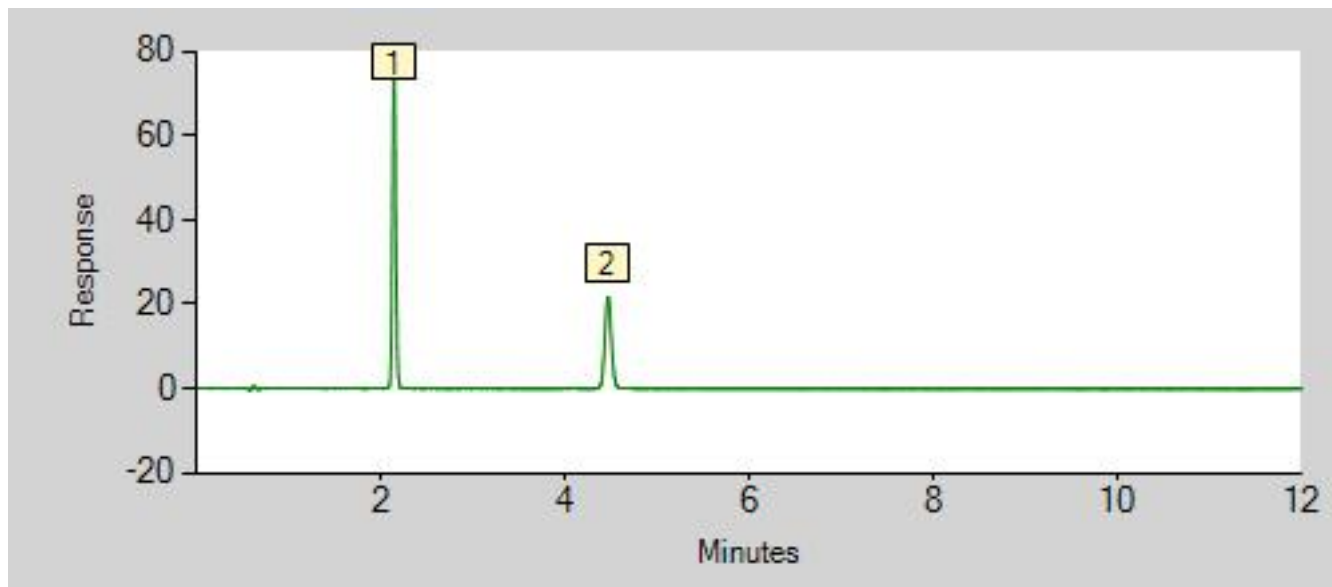
column_A	
Manufacturer	Thermo Scientific
Model	Accucore XL C8
Diameter	4.6
Length	150
Particle Size	4
Packing Material	Accucore XL C8, 4 μ m 150 x 4.6mm p/n 74204-154630

System information

Instrument Type	UHPLC
Autosampler model	Accela Autosampler
Pump model	Accela Pump
UV Detector model	Accela.Pda

Results

Channel UV_VIS_1



No	Peak_Name	*Compound_Cla ss	Retention_Time	Peak_Area	Peak_Area_pc	Peak_Height	Peak_Height_pc	Peak_EP_Plates
1	Fenoprofen	n.a.	2.143	3.185	63.95	76.030	77.74	16902
2	Gemfibrozil	n.a.	4.468	1.795	36.05	21.776	22.26	18987

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Appendix

The application can be accessed at <http://dlibrary.dionex.com/Public/View.aspx?ApplicationID=603>

Available Downloads

Filename	Size(bytes)
level 1 - fenoprofen - JJ REVIEWED - accucore and fully porous comparison.pptx	928917

Related Information

No related information available.