

Analysis of Intact Proteins on a Thermo Scientific Accucore 150-C4 150 Å Pore  
Diameter HPLC Column

Application #568

07 September 2012

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## Analysis of Intact Proteins on a Thermo Scientific Accucore 150-C4 150 Å Pore Diameter HPLC Column

### General Information

Market: Pharmaceutical

Matrix: Standard

Instrument type: UHPLC

### Description

Accucore™ HPLC columns use Core Enhanced Technology™ to facilitate fast and high efficiency separations. The 2.6 μm diameter particles have a solid core and a porous outer layer. The optimized phase bonding creates a series of high-coverage, robust phases. The tightly controlled 2.6 μm diameter of Accucore particles results in much lower backpressures than typically seen with sub 2 μm materials. For the analysis of large biomolecules the Accucore pore size has been further optimized and a C4 phase with reduced hydrophobic retention has been prepared. This 150 Å pore size enables the effective analysis of molecules unable to penetrate into smaller diameter pores, whilst the low hydrophobicity C4 phase results in protein separation by hydrophobicity

## Method Details

### Instrument parameters

Instrument Parameter	Value
Run Time Length	10.010 min
Mobile_Phase_A	0.1 % TFA in 30:70 acetonitrile:water
Mobile_Phase_B	0.1 % TFA in 98:2 acetonitrile:water
Flow_Rate	400 $\mu$ L/min
Column_Temperature	40 $^{\circ}$ C
Injection_Volume	2 $\mu$ L
Detection	UV 214 nm

## Gradient Details

Ret. Time [min]	Flow [ml/min]	%B [%]	%C [%]	%D [%]
0.000	400.000	0.0	0.0	0.0
8.000	400.000	30.0	0.0	0.0
10.000	400.000	95.0	0.0	0.0
11.000	400.000	95.0	0.0	0.0
11.100	400.000	0.0	0.0	0.0
15.000	400.000	0.0	0.0	0.0

## Column Details

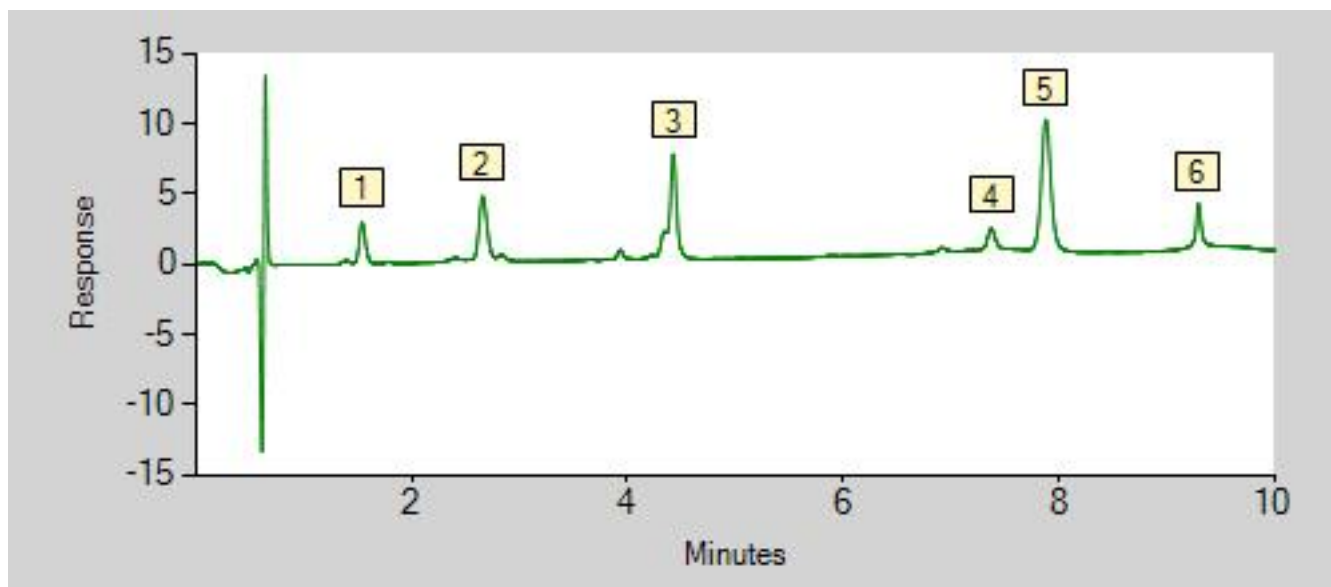
column_A	
Manufacturer	Thermo Fisher Scientific
Model	Accucore 150-C4
Diameter	2.1
Length	100
Particle Size	2.6
Packing Material	C4

## System information

Instrument Type	UHPLC
UHPLC	Generic

## Results

### Channel Channel\_A



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	Insulin (6 kDa)	Protein	1.537	0.172	6.86	2.768	9.72	3716	9.48	1.11
2	Cytochrome C (12 kDa)	Protein	2.657	0.411	16.44	4.484	15.75	6154	14.59	1.18
3	Lysozyme (14 kDa)	Protein	4.425	0.661	26.45	7.440	26.14	27412	25.03	0.83
4	Myoglobin (18 kDa)	Protein	7.375	0.122	4.89	1.479	5.20	52425	3.53	1.15
5	Carbonic anhydrase (30 kDa)	Protein	7.883	0.964	38.56	9.307	32.69	39354	11.83	1.08
6	Ovalbumin (45 kDa)	Protein	9.300	0.170	6.80	2.988	10.50	213693	n.a.	1.14

## Appendix

The application can be accessed at <http://dlibrary.dionex.com/Public/View.aspx?ApplicationID=568>

### Available Downloads

No downloads available.

### Related Information

No related information available.