Intact Proteins

Application #342

22 August 2012

Intact Proteins

General Information

Market: Biopharmaceutical
Matrix: Standard
Instrument type: UHPLC

Description

Accucore™ HPLC columns use Core Enhanced Technology™ to facilitate fast and high efficiency separations. The 2.6 m 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 m diameter of Accucore particles results in much lower backpressures than typically seen with sub-2 m 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 µL/min
Temperature	40 °C
Injection_Volume	2 µL
UV_Detector	Wavelength 214nm

Gradient Details

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

Column Details

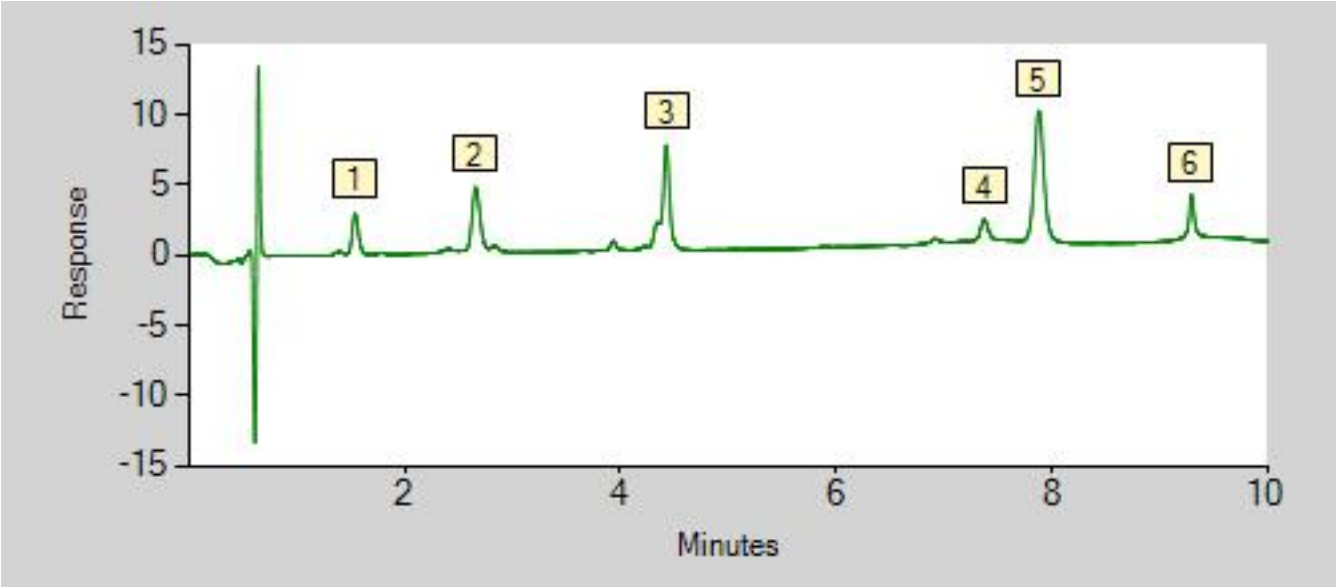
column_A	
Manufacturer	Thermo Fisher Scientific
Model	Accucore 150-C4
Diameter	2.1
Length	100
Particle Size	2.6
Packing Material	C4

System information

Instrument Type	UHPLC
UHPLC	Generic

Results

Channel Channel_A



No	Peak_Name	*Compound_Class	Retention_Time	Peak_Area	Peak_Area_pc	Peak_Height	Peak_Height_pc	Plates_(USP)	Resolution_(USP)	Tailing_Factor_(USP)
1	Insulin	n.a.	1.537	0.184	8.65	2.853	10.58	3522	9.45	1.16
2	Cytochrome	n.a.	2.657	0.367	17.23	4.413	16.36	6338	15.86	1.13
3	Lysozyme	n.a.	4.425	0.327	15.33	5.954	22.07	39099	27.49	1.18
4	Myoglobin	n.a.	7.375	0.111	5.22	1.430	5.30	55622	3.57	1.11
5	Carbonic anhydrase	n.a.	7.883	0.975	45.73	9.333	34.60	39168	11.82	1.09
6	Ovalbumin	n.a.	9.300	0.167	7.82	2.992	11.09	214361	n.a.	1.00

Appendix

The application can be accessed at http://dlibrary.dionex.com/Public/View.aspx?ApplicationID=342

Available Downloads

Filename	Size(bytes)
Analysis of Intact Proteins.pdf	616672

Related Information

No related information available.