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10271 - Column Application Note Characterization of Gelatin

Gelatin is a polypeptide that is produced from hydrolysis of collagenes in skin and bones. It is obtained from acidic or from basic hydrolysis and contains polyaminoacids. Gelatin is used in food, beverage and in pharmaceutical industry as stabilizer for tablets and many other applications.

Experimental Setup

Mobile Phase:	Phosphate buffer pH 6.6 Sodium chloride 0.3M
Stationary Phase:	PSS PROTEEMA
Flow rate [mL/min]:	1,00
Temperature [°C]:	25
Detection:	GPC1100 Refractive index
Calibration:	Kit Pullulan
Data processing:	PSS WinGPC

Recommandations for Sample Concentration

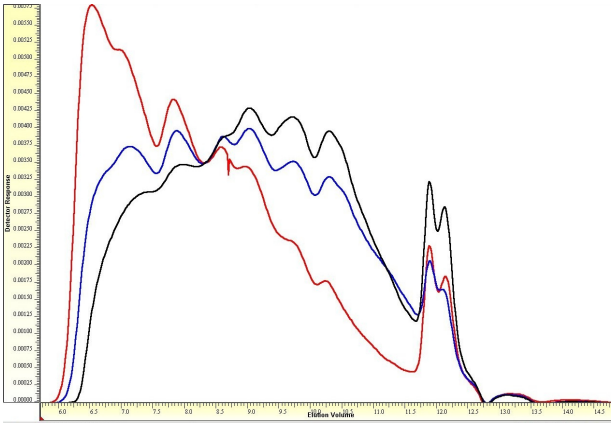
narrow PDI	
M 100 Da - 10 000 Da:	2 g/L
M 10 000 Da - 1 000 000 Da:	1-2 g/L
M > 1 000 000 Da:	0.5 g/L or less
broad PDI (>1.5)	
all molar masses:	3.0 - 5.0 g/L
Injection volume [µL]:	20

Suitable Columns

low molecular weights:	P/N pra080505 and 2x pra0830051e2
medium molecular weights:	P/N pra080505 and pra0830053e2
high molecular weights:	P/N pra080505 and 2x pra0830051e3
ultrahigh molecular weights:	-

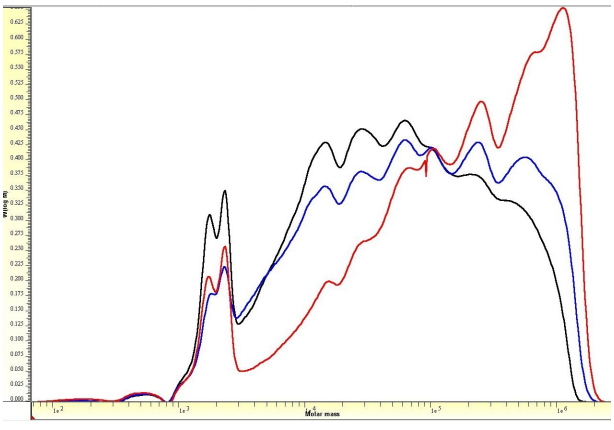
Elugram

separation on PSS PROTEEMA



Molar Mass Distribution

separation on PSS PROTEEMA



PSS Polymer Standards Service GmbH
In der Dalheimer Wiese 5
55120 Mainz | Germany

Phone +49 6131 96239-0
Fax +49 6131 96239-11
E-Mail info@pss-polymer.com
Web www.pss-polymer.com

Polymer Standards Service-USA, Inc.
160 Old Farm Rd, Suite A
Amherst | MA 01002 | USA

Phone +1 413 835-0265
Fax +1 413 835-0354
E-Mail pssusa@pss-polymer.com
Web www.pss-polymer.com

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