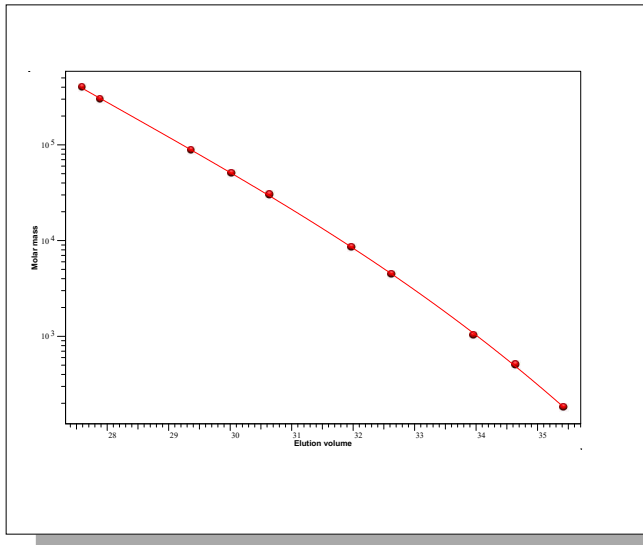


Certificate of Analysis

Product: ReadyCal-Kit Dextran
 Part No: PSS-dxtkitr1
 Lot No: dxtkitr1-02

GPC/SEC - Calibration Curve



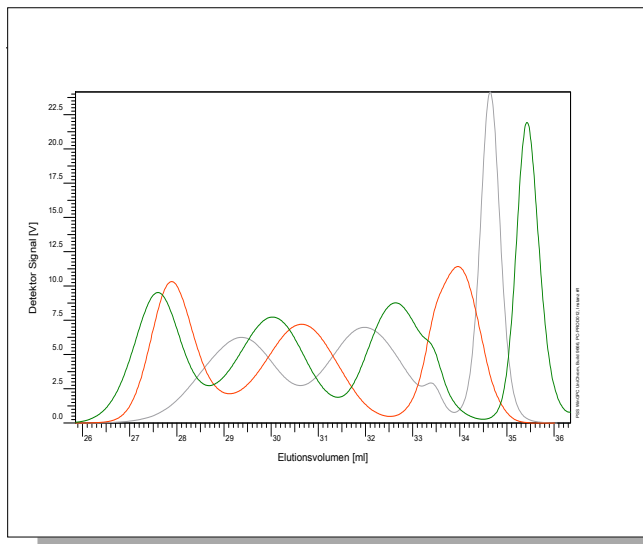
GPC/SEC - Calibration Table

Elution volume [ml]	Mp [Da]	Polymer Lot No:
27,60	400000	dxt010721
27,89	298000	dxt070718
29,37	87000	dxt070218
30,03	50400	dxt060218
30,65	30000	dxt050218
31,98	8500	dxt030218
32,63	4410	dxt020218
33,97	1030	dxt010218
34,65	504	dxt03-2
35,42	180	dxt01

Note:

Mp = Molar mass at the peak maximum

GPC/SEC - Polymer Overlay

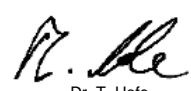


GPC/SEC - Calibration Conditions

Solvent: Water, Sodium azide 0.5g/L
 Flow rate: 1,00 ml/min
 Precolumn [8 x 50 mm]: PSS SUPREMA 10µm
 Columns [8 x 300 mm]: PSS SUPREMA 10µm ultrahigh / ultrahigh / ultrahigh
 Temperature: 23 °C
 Inject volume: 20 µl
 Internal standard: Ethylene glycol at 37,06 ml
 Data Acquisition Software: PSS WinGPC
 Calibration by: A.Klein
 Fit quality: Polynomial 3
 R: 0,999954

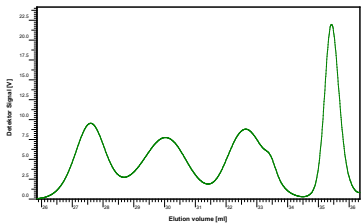
Storage: Store the tightly recapped polymer standards in a dry, dark, cool area; e.g. a refrigerator (4 °C).
 Date of expiry: yyyy/mm/dd (See also product label.)
 Date of approval: yyyy/mm/dd

Manufacture and control according to PSS method of analysis


 Dr. T. Hofe
 production director

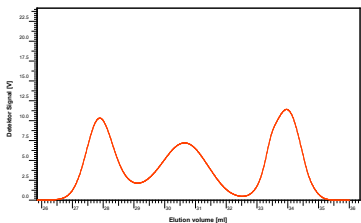
Product: ReadyCal-Kit Pullulan
 Part No: PSS-dxtkitr1
 Lot No: dxtkitr1-02

Colour code: Cap – green



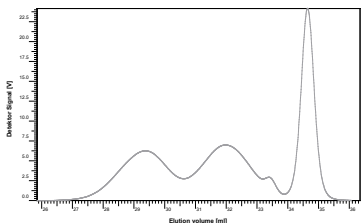
Mp [Da]	Mw [Da]	Mn [Da]	Mw (LS) ^a / Mn (NMR) ^b [Da]	Mass [mg]	Lot No:
400 000	452 000	339 000	561 000 ^a	1.50	dxt010721
50 400	64 300	44 000	70 600 ^a	1.50	dxt060218
4 410	5 070	3 380	5 160 ^a	1.50	dxt020218
180	180	180	180 ^b	1.50	dxtp1

Colour code: Cap – red



Mp [Da]	Mw [Da]	Mn [Da]	Mw (LS) ^a / Mn (NMR) ^b [Da]	Mass [mg]	Lot No:
298 000	293 000	215 000	362 000 ^a	1.50	dxt070718
30 000	37 400	23 400	38 400 ^a	1.50	dxt050218
1 030	1 260	946	1 390 ^a	1.50	dxt010218

Colour code: Cap – white



Mp [Da]	Mw [Da]	Mn [Da]	Mw (LS) ^a / Mn (NMR) ^b [Da]	Mass [mg]	Lot No:
87 000	129 000	66 000	147 000 ^a	1.50	dxt070218
8 500	10 300	5 850	10 800 ^a	1.50	dxt030218
504	504	504	504 ^b	1.50	dxtp3-2

Please note: The GPC molar mass data are based on a set of dextran reference samples with a different degree of branching. The light scattering result represents the molar mass based on the branching of the sample.

Polymers stabilized with 2% sodium azide.

For exact determination of sample concentration, we recommend to add the solvent volume precisely.

Level of eluent	full	half	quarter
Volume of eluent	1.5 ml	0.75 ml	0.375 ml
Concentration	1.0 g/l	2.0 g/l	4.0 g/l