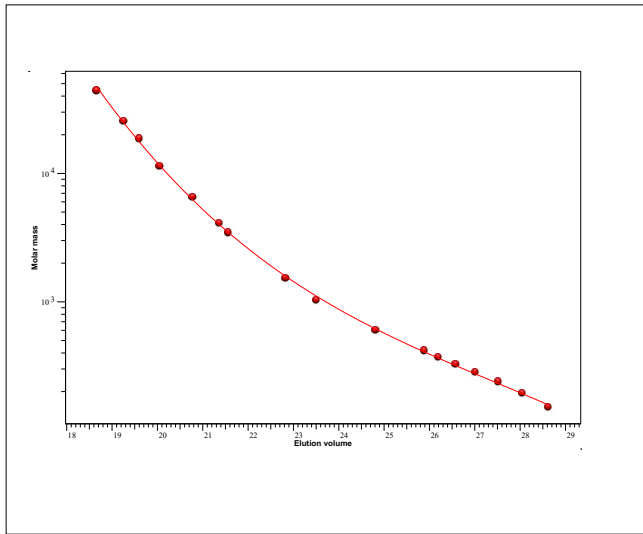


Certificate of Analysis

Product: ReadyCal-Kit Poly(ethylene glycol)
 Part No: PSS-pegkit
 Lot No: pegkitr1-08

GPC/SEC - Calibration Curve



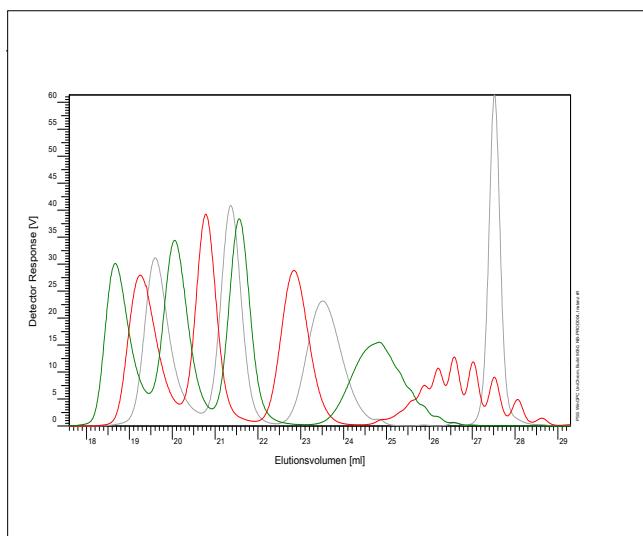
GPC/SEC - Calibration Table

Elution volume [ml]	Mp [Da]	Polymer Lot No:
18,67	44000	peg121015
19,26	25300	peg030817
19,60	18600	peg160-2
20,06	11400	peg010416
20,78	6530	peg2128
21,37	4100	peg050213
21,57	3450	peg040416
22,84	1530	peg081015
23,50	1030	peg231113
24,82	599	peg06-4
25,89	414	peg03-2
26,20	370	peg03-2
26,58	326	peg03-2
27,02	282	peg03-2
27,52	238	peg160317
28,05	194	peg03-2
28,63	150	peg03-2

Note:

Mp = Molar mass at the peak maximum

GPC/SEC - Polymer Overlay

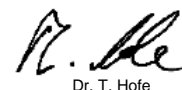


GPC/SEC - Calibration Conditions

Solvent	Water, 0.5g/L sodium azide
Flow rate	1,00 ml/min
Precolumn [8 x 50 mm]	PSS SUPREMA 5µm
Columns [8 x 300 mm]	PSS SUPREMA 5µm 100Å / 100Å / 100Å
Temperature	23 °C
Inject volume	20 µl
Internal standard	none
Data Acquisition Software	PSS WinGPC
Calibration by	J.Preis
Fit quality	

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

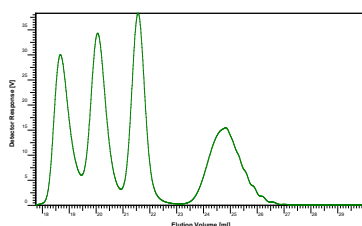
Manufacture and control according to PSS method of analysis



Dr. T. Hofe
production director

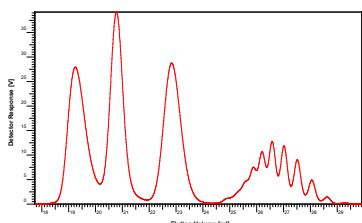
Product: ReadyCal-Kit Poly(ethylene glycol)
 Part No: PSS-pegkit
 Lot No: pegkitr1-08

Colour code: Cap – green



Mp [Da]	Mw [Da]	Mn [Da]	Mw (LS) ^a / Mn (NMR) ^b [Da]	Mass [mg]	Lot No:
44 000	41 300	31 700	39 800 ^a	2.25	peg121015
11 400	11 100	10 100	10 600 ^a	2.25	peg010416
3 450	3 450	3 340	3 570 ^a	2.25	peg040416
599	601	560	604 ^b	2.25	peg06-4

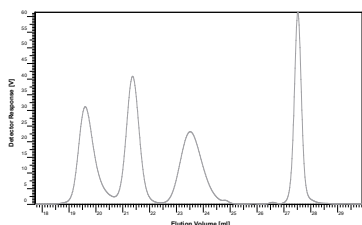
Colour code: Cap – red



Mp [Da]	Mw [Da]	Mn [Da]	Mw (LS) ^a / Mn (NMR) ^b [Da]	Mass [mg]	Lot No:
25 300	23 600	19 900	21 500 ^a	2.25	peg030817
6 530	6 200	5 860	6 250 ^a	2.25	peg2128
1 530	1 530	1 480	1 420 ^b	2.25	peg081015
329	330	269	269 ^b	2.25	peg03-2*

* Poly(ethylene glycol) Mp 329 = highest peak according to the GPC/SEC conditions
 (Lot No: peg03-2 oligo – mixture with theoretical Mp 414, 370, 326, 282, 238, 194, 150)

Colour code: Cap – white



Mp [Da]	Mw [Da]	Mn [Da]	Mw (LS) ^a / Mn (NMR) ^b [Da]	Mass [mg]	Lot No:
18 600	17 900	14 900	16 000 ^a	2.25	peg160-2
4 100	4 240	4 070	4 460 ^a	2.25	peg050213
1 030	1 020	978	837 ^b	2.25	peg231113
238	238	238	238 ^b	2.25	peg160317

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	1.5 g/l	3 g/l	6 g/l