

Supporting Information for

Conjugation of CRAMP_{18–35} Peptide to Chitosan and Hydroxypropyl Chitosan via Copper-Catalyzed Azide-Alkyne Cycloaddition and Investigation of Antibacterial Activity

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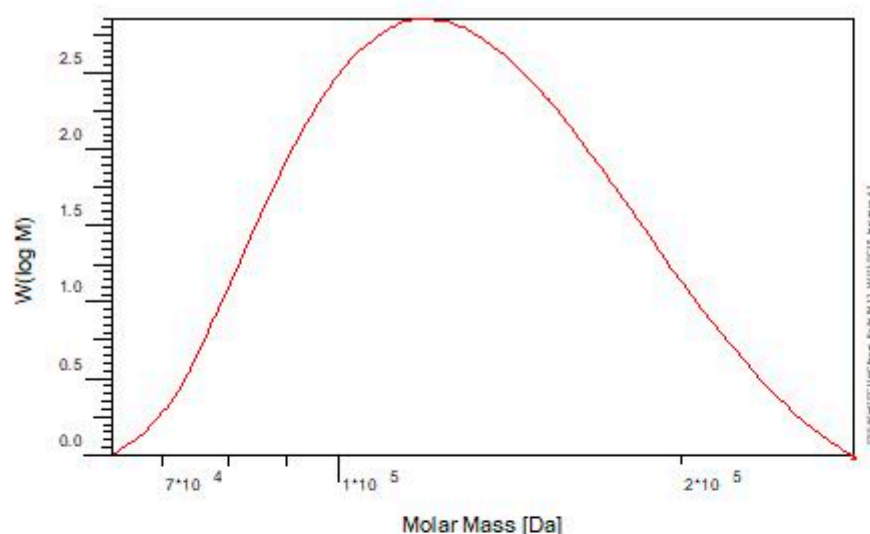
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The molecular weight distribution of the chitosan peptide conjugates, and the chitosan derivatives based on the GPC analysis.

Chitosan peptide Conjugates 1

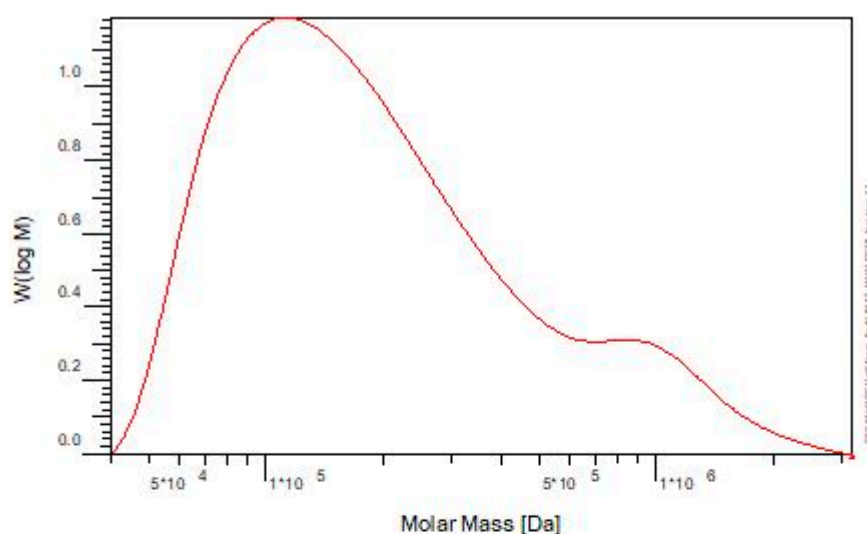


Sample :	Vial: 12: RKS-6M-01 - 1	
Integration from:	Thursday 16.02.23 03:25:06	13.651 ml
Integration to :	Thursday 16.02.23 03:29:03	17.801 ml
Calibration File:	C:\Program Files (x86)\PSS WinGPC UniChrom 6.0\Calibration Files\Nov 2022\Nov 2022.CAL	
MHK - A (Cal):	0.000E+0	MHK - K (Cal): 1.000E+0 ml/g
Int stand.-cal.:	50.000 ml	Int stand.-sam.: ----- ml
Pump :	n.a.	Flowrate : 1.000 ml/min
Concentration :	1.000 g/l	Inject volume : 100.000 μ l
Column 1 :	PSS Novema 10 μ m precolumn	Temperature : 40.000 $^{\circ}$ C
Column 2 :	PSS Novema 10 μ m 30A	Temperature : 40.000 $^{\circ}$ C
Column 3 :	PSS Novema 10 μ m 1000A	Temperature : 40.000 $^{\circ}$ C
Detector 1 :	I1: RID 1, RI Signal	Delay volume : 0.583 ml
Detector 2 :	I1: IsoPump 1, Pressure	Delay volume : 0.000 ml
Detector 3 :	PSS DVD1280 IP	Delay volume : 0.299 ml
Detector 4 :	PSS DVD1280 DP	Delay volume : 0.299 ml
Detector 5 :	PSS SLD 7000/BI-MwA	Delay volume : 0.000 ml
Operator :	gpcadmin	Acquisition interval: 1.000 sec

I1: RID 1, RI Signal

	Value	Uncert. [%]	Unit
Mn :	1.2234e5	n/a	g/mol
Mw :	1.3313e5	n/a	g/mol
Mz :	1.4518e5	n/a	g/mol
Mv :	0.000000	n/a	g/mol
D :	1.0882e0	n/a	
[η]:	0.000000	n/a	ml/g
Vp :	1.5918e1	256.75	ml
Mp :	1.1947e5	n/a	g/mol
A :	9.798e-4	256.75	ml \cdot V
< 63008	0.00	256.75	
w% :	100.00	256.75	
> 282982	0.00	256.75	

Hydroxypropyl chitosan peptide Conjugates 2



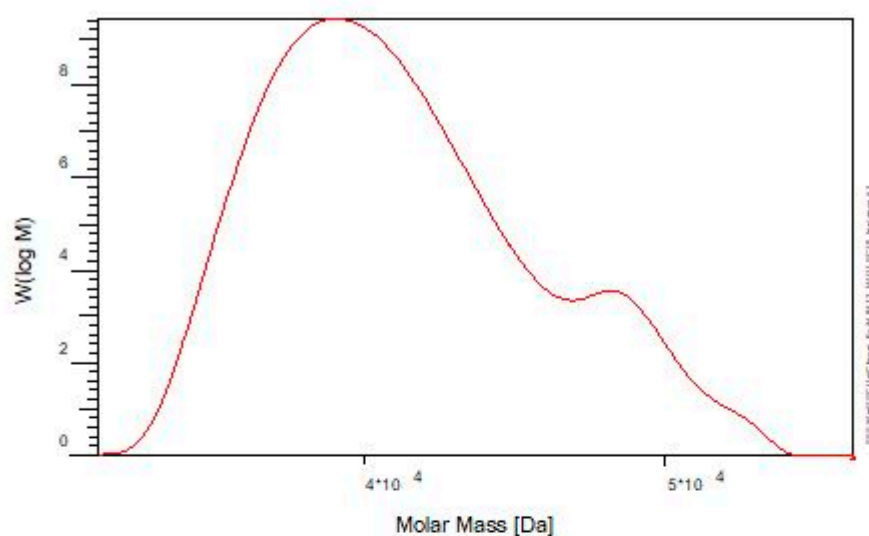
Sample : Vial 13: RKS-6M-02 - 1
Integration from: Thursday 16.02.23 04:55:17
Integration to : Thursday 16.02.23 05:02:21
Calibration File: C:\Program Files (x86)\PSS WinGPC UniChrom\Calibration\120-Nov2022.CAL
MHK - A (Cal): 0.000E+0
Int.stand.-cal: 50.000 ml
Pump : n.a.
Concentration : 1.400 g/l
Column 1 : PSS Novema 10µm precolumn
Column 2 : PSS Novema 10µm 30A
Column 3 : PSS Novema 10µm 1000A
Detector 1 : I1: RID 1, RI Signal
Detector 2 : I1: IsoPump 1, Pressure
Detector 3 : PSS DVD1260 IP
Detector 4 : PSS DVD1260 DP
Detector 5 : PSS SLD 7000/BI-MwA
Operator : gpcadmin

120-Nov2022.CAL
MHK - K (Cal): 1.000E+0 ml/g
Int.stand.-sam.: ----- ml
Flowrate : 1.000 ml/min
Inject volume : 100.000 µl
Temperature : 40.000 °C
Temperature : 40.000 °C
Temperature : 40.000 °C
Delay volume : 0.583 ml
Delay volume : 0.000 ml
Delay volume : 0.299 ml
Delay volume : 0.299 ml
Delay volume : 0.000 ml
Acquisition interval 1.000 sec

I1: RID 1, RI Signal

	Value	Uncert. [%]	Unit
Mn :	1.4198e5	n/a	g/mol
Mw :	2.9316e5	n/a	g/mol
Mz :	7.0027e5	130.68	g/mol
Mv :	0.000000	n/a	g/mol
D :	2.0849e0	n/a	
[n] :	0.000000	n/a	ml/g
Vp :	1.6195e1	17.45	ml
Mp :	1.1266e5	n/a	g/mol
A :	6.447e-3	17.45	ml*V
< 39893	0.00	17.45	
w% :	100.00	17.45	
> 3158248	0.00	17.45	

Chitotriazolan derivative 3



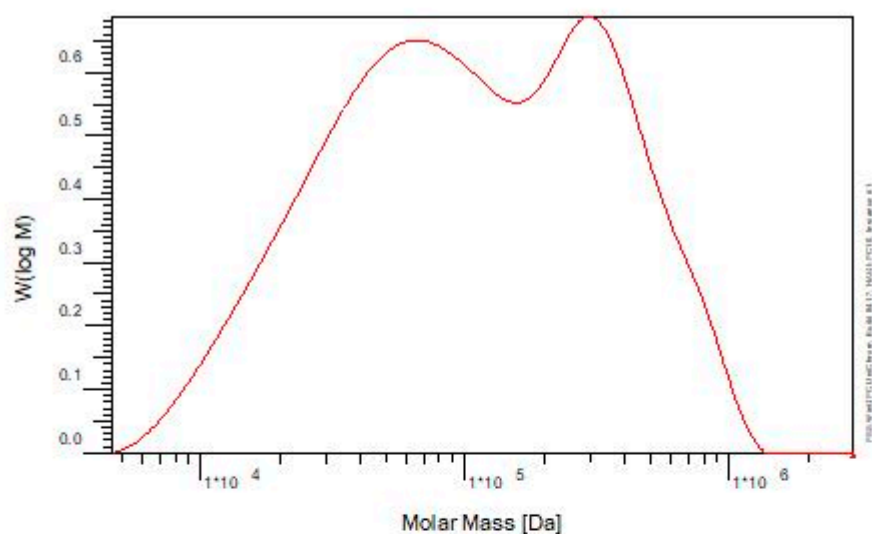
Sample : Vial 14: RKS-6M-03 - 1
Integration from: Thursday 16.02.23 06:27:14 9.744 ml
Integration to : Thursday 16.02.23 06:36:33 19.051 ml
Calibration File : C:\Program Files (x86)\PSS WinGPC UniChrom ED\Calibration Vials\Nov 2022.CAL
MHK - A (Cal.): 0.000E+0
Int.stand.-cal: 50.000 ml
Pump : n.a.
Concentration : 1.000 g/l
Column 1 : PSS Novema 10µm precolumn
Column 2 : PSS Novema 10µm 30A
Column 3 : PSS Novema 10µm 1000A
Detector 1 : I1: RID 1, RI Signal
Detector 2 : I1: IsoPump 1, Pressure
Detector 3 : PSS DVD1280 IP
Detector 4 : PSS DVD1280 DP
Detector 5 : PSS SLD 7000/BI-MwA
Operator : gpcadmin

MHK - K (Cal.): 1.000E+0 ml/g
Int.stand.-sam.: ----- ml
Flowrate : 1.000 ml/min
Inject volume : 100.000 µl
Temperature : 40.000 °C
Temperature : 40.000 °C
Temperature : 40.000 °C
Delay volume : 0.583 ml
Delay volume : 0.000 ml
Delay volume : 0.299 ml
Delay volume : 0.299 ml
Delay volume : 0.000 ml
Acquisition interval 1.000 sec

I1: RID 1, RI Signal
Uncert. [%]

Mn :	4.0970e4	n/a	g/mol
Mw :	4.1387e4	n/a	g/mol
Mz :	4.1828e4	n/a	g/mol
Mv :	0.000000	n/a	g/mol
D :	1.0102e0	n/a	
[n] :	0.000000	n/a	ml/g
Vp :	1.6074e1	7.38	ml
Mp :	3.9278e4	n/a	g/mol
A :	1.203e-2	7.38	ml*V
< 32840	0.00	7.38	
w% :	100.00	7.38	
> 57470	0.00	7.38	

HP-Chitotriazolan 4



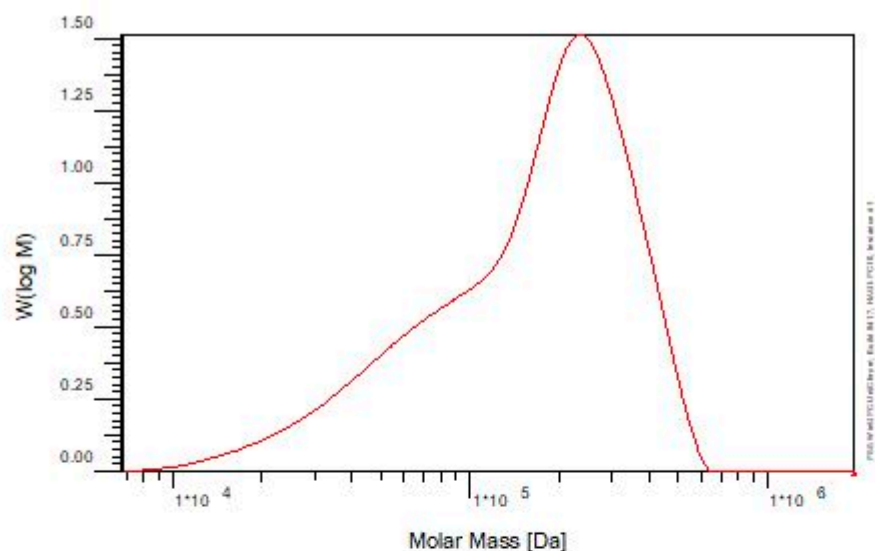
Sample : Vial 15: RKS-6M-04 - 3
Integration from: Thursday 16.02.23 09:01:56
Integration to: Thursday 16.02.23 09:10:40
Calibration File: C:\Program Files (x86)\PSS WinGPC UniChrom\EDS\Calibration Vials\Nov 2022\Nov 2022.CAL
MHK - A (Cal.): 0.000E+0
Int.stand.-cal: 50.000 ml
Pump : n.a.
Concentration : 1.000 g/l
Column 1 : PSS Novema 10µm precolumn
Column 2 : PSS Novema 10µm 30A
Column 3 : PSS Novema 10µm 1000A
Detector 1 : I1: RID 1, RI Signal
Detector 2 : I1: IsoPump 1, Pressure
Detector 3 : PSS DVD1280 IP
Detector 4 : PSS DVD1280 DP
Detector 5 : PSS SLD 7000/BI-MwA
Operator : gpcadmin

EDS
Calibration Vials
Nov 2022
Nov 2022.CAL
MHK - K (Cal.): 1.000E+0 ml/g
Int.stand.-sam.: ----- ml
Flowrate : 1.000 ml/min
Inject volume : 100.000 µl
Temperature : 40.000 °C
Temperature : 40.000 °C
Temperature : 40.000 °C
Delay volume : 0.583 ml
Delay volume : 0.000 ml
Delay volume : 0.299 ml
Delay volume : 0.299 ml
Delay volume : 0.000 ml
Acquisition interval 1.000 sec

I1: RID 1, RI Signal
Uncert. [%]

Mn :	5.3320e4	n/a	g/mol
Mw :	1.9167e5	n/a	g/mol
Mz :	4.2164e5	n/a	g/mol
Mv :	0.000000	n/a	g/mol
D :	3.5948e0	n/a	
[n] :	0.000000	n/a	ml/g
Vp :	1.2499e1	9.07	ml
Mp :	2.9352e5	n/a	g/mol
A :	9.143e-3	9.07	ml*V
< 4578	0.00	9.07	
w% :	100.00	9.07	
> 2914345	0.00	9.07	

Hydroxypropyl chitosan A2



Sample : Vial 16: RKS-6M-05 - 2
 Integration from: Thursday 16.02.23 10:03:21 8.787 ml
 Integration to : Thursday 16.02.23 10:12:36 18.037 ml
 Calibration File : C:\Program Files (x86)\PSS WinGPC UniChrom Elite\Calibration Vials\ISO-400-CHITNA-Buffer Nov 2022.CAL
 MHK - A (Cal.): 0.000E+0
 MHK - K (Cal.): 1.000E+0 ml/g
 Int.stand.-cal.: 50.000 ml
 Int.stand.-sam.: ----- ml
 Pump : n.a.
 Flowrate : 1.000 ml/min
 Concentration : 1.000 g/l
 Inject volume : 100.000 µl
 Column 1 : PSS Novema 10µm precolumn
 Temperature : 40.000 °C
 Column 2 : PSS Novema 10µm 30A
 Temperature : 40.000 °C
 Column 3 : PSS Novema 10µm 1000A
 Temperature : 40.000 °C
 Detector 1 : I1: RID 1, RI Signal
 Delay volume : 0.583 ml
 Detector 2 : I1: IsoPump 1, Pressure
 Delay volume : 0.000 ml
 Detector 3 : PSS DVD1280 IP
 Delay volume : 0.299 ml
 Detector 4 : PSS DVD1280 DP
 Delay volume : 0.299 ml
 Detector 5 : PSS SLD 7000/BI-MwA
 Delay volume : 0.000 ml
 Operator : gpcadmin
 Acquisition interval 1.000 sec

I1: RID 1, RI Signal
 Uncert. [%]

Mn	1.0266e5	36.98	g/mol
Mw	1.9590e5	24.75	g/mol
Mz	2.7195e5	6.55	g/mol
Mv	0.000000	27.45	g/mol
D	1.9082e0	44.49	
[n]	0.000000	0.00	ml/g
Vp	1.2233e1	2.90	ml
Mp	2.3575e5	37.42	g/mol
A	1.041e-2	2.90	ml*V
< 6742	0.00	2.90	
w%	100.00	2.90	
> 1945883	0.00	2.90	