

FIGURES

Figure 1

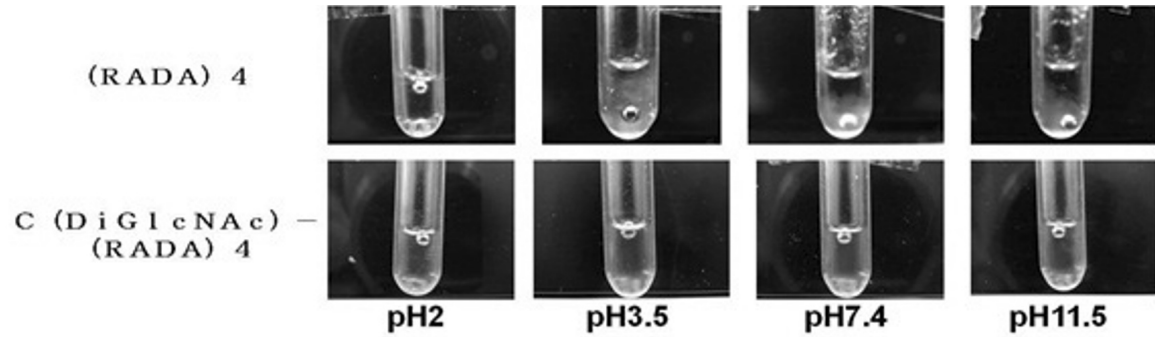


Figure 2

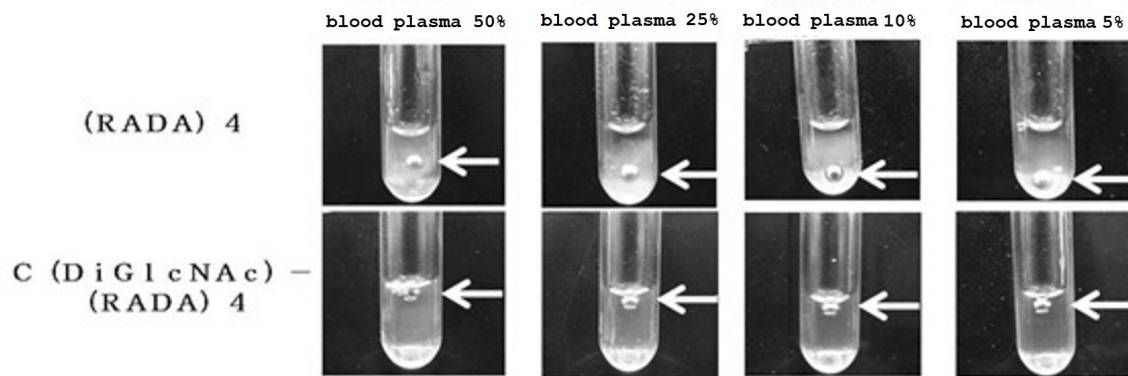


Figure 3

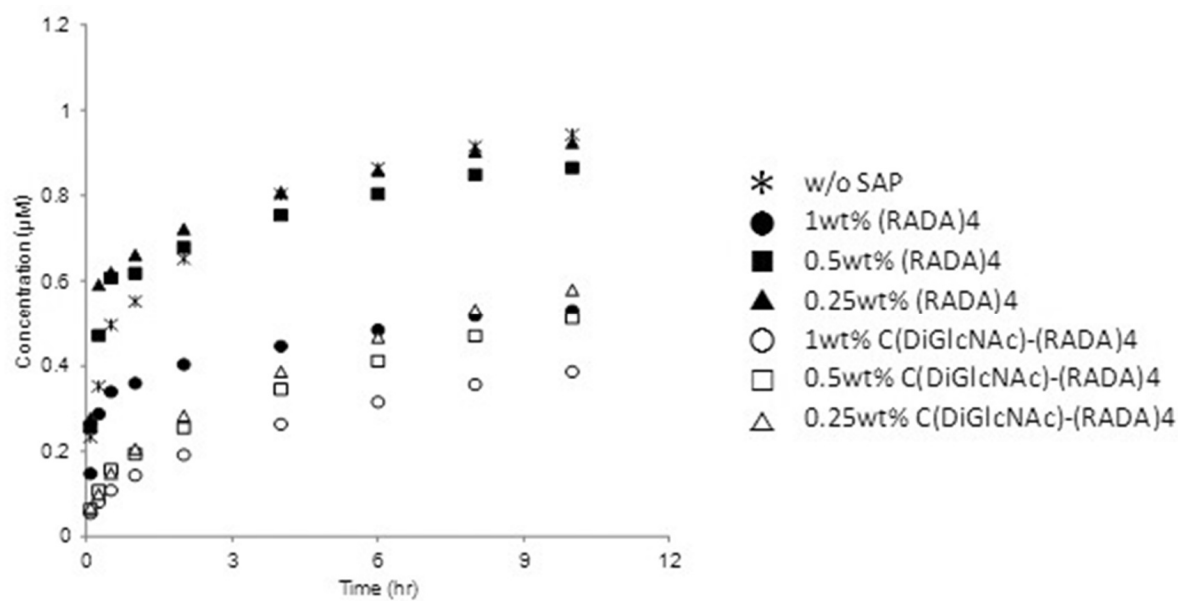


Figure 4

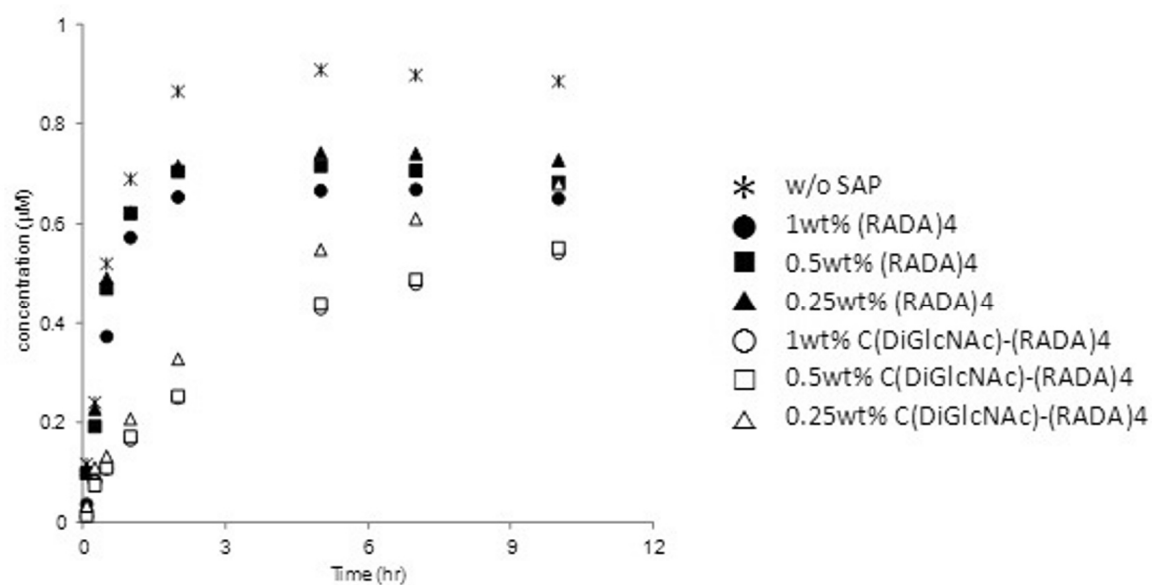


Figure 5

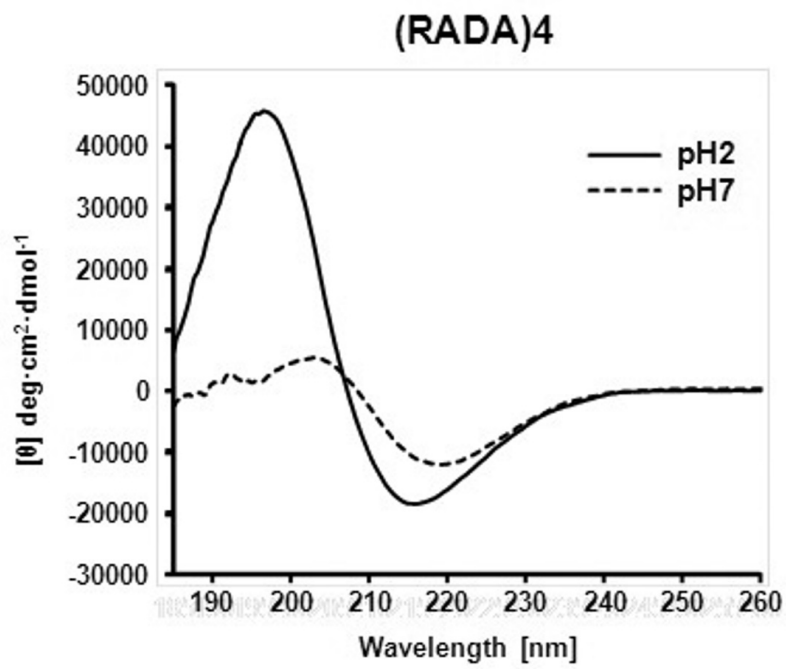


Figure 6

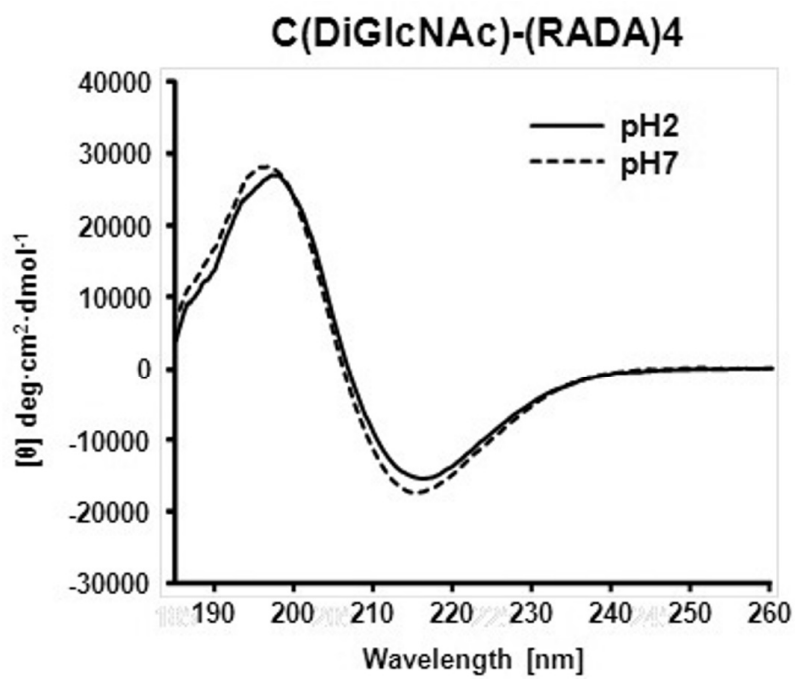
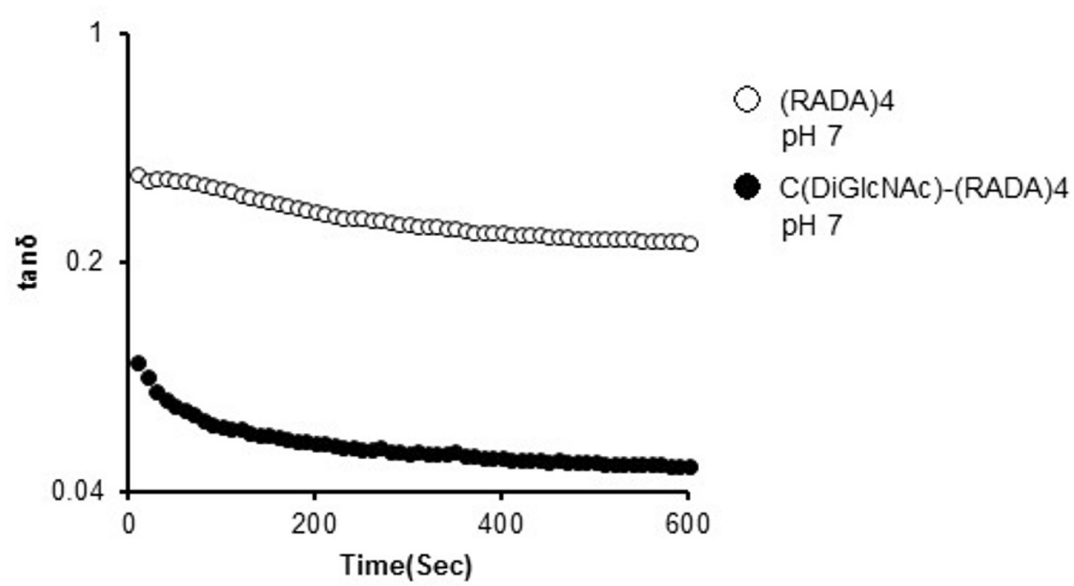


Figure 7



SEQUENCE LISTING

<110> GLYTECH, INC.

<120> SUGAR CHAIN - POLYPEPTIDE COMPLEX

<130> OCKP1302F

<150> JP2013-075493

<151> 2013.03.30

<160> 57

<170> PatentIn version 3.5

<210> 1

<211> 16

<212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<400> 1

Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala
1				5				10						15	

<210> 2

<211> 20

<212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<400> 2

Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala
1				5				10						15	

Arg	Ala	Asp	Ala
			20

<210> 3

<211> 16

<212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<400> 3

Arg	Ala	Thr	Ala	Arg	Ala	Glu	Ala	Arg	Ala	Thr	Ala	Arg	Ala	Glu	Ala
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1	5	10	15
<210>	4		
<211>	17		
<212>	PRT		
<213>	artificial sequence		
<220>			
<223>	chemically synthesized		
<220>			
<221>	BINDING		
<222>	(1) .. (1)		
<223>	Fmoc		
<220>			
<221>	BINDING		
<222>	(1) .. (1)		
<223>	Trt		
<220>			
<221>	BINDING		
<222>	(2) .. (2)		
<223>	Pbf		
<220>			
<221>	BINDING		
<222>	(4) .. (4)		
<223>	OtBu		
<220>			
<221>	BINDING		
<222>	(6) .. (6)		
<223>	Pbf		
<220>			
<221>	BINDING		
<222>	(8) .. (8)		
<223>	OtBu		
<220>			
<221>	BINDING		
<222>	(10) .. (10)		
<223>	Pbf		
<220>			
<221>	BINDING		
<222>	(12) .. (12)		
<223>	OtBu		
<220>			
<221>	BINDING		
<222>	(14) .. (14)		
<223>	Pbf		
<220>			

<221> BINDING
 <222> (16)..(16)
 <223> OtBu

<220>
 <221> BINDING
 <222> (17)..(17)
 <223> Resin

<400> 4

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
 1 5 10 15

Ala

<210> 5
 <211> 17
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> AMIDATION
 <222> (17)..(17)

<400> 5

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
 1 5 10 15

Ala

<210> 6
 <211> 17
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> Disialo sugar chain added

<220>
 <221> AMIDATION
 <222> (17)..(17)

<400> 6

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
 1 5 10 15

Ala

<210> 7
 <211> 17
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> Asialo sugar chain added

<220>
 <221> AMIDATION
 <222> (17)..(17)

<400> 7

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
 1 5 10 15

Ala

<210> 8
 <211> 17
 <212> PRT
 <213> artificial sequence

<220>

<223> chemically synthesized

<220>

<221> ACETYLATION

<222> (1)..(1)

<220>

<221> CARBOHYD

<222> (1)..(1)

<223> DiGlcNAc sugar chain added

<220>

<221> AMIDATION

<222> (17)..(17)

<400> 8

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
1 5 10 15

Ala

<210> 9

<211> 17

<212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<220>

<221> ACETYLATION

<222> (1)..(1)

<220>

<221> CARBOHYD

<222> (1)..(1)

<223> DiMan sugar chain added

<220>

<221> AMIDATION

<222> (17)..(17)

<400> 9

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
1 5 10 15

Ala

<210> 10
 <211> 17
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> GlcNAc sugar chain added

<220>
 <221> AMIDATION
 <222> (17)..(17)

<400> 10

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
 1 5 10 15

Ala

<210> 11
 <211> 17
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> Maltoheptaose sugar chain added

<220>
 <221> AMIDATION
 <222> (17)..(17)

<400> 11

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
 1 5 10 15

Ala

<210> 12
 <211> 17
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> beta-cyclodextrin sugar chain added

<220>
 <221> AMIDATION
 <222> (17)..(17)

<400> 12

Cys	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp
1				5				10					15		

Ala

<210> 13
 <211> 17
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> gamma-cyclodextrin sugar chain added

<220>
 <221> AMIDATION

<222> (17) .. (17)

<400> 13

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
1 5 10 15

Ala

<210> 14

<211> 21

<212> PRT

<213> Artificial sequence

<220>

<223> chemically synthesized

<220>

<221> BINDING

<222> (1) .. (1)

<223> Fmoc

<220>

<221> BINDING

<222> (1) .. (1)

<223> Trt

<220>

<221> BINDING

<222> (2) .. (2)

<223> Pbf

<220>

<221> BINDING

<222> (4) .. (4)

<223> OtBu

<220>

<221> BINDING

<222> (6) .. (6)

<223> Pbf

<220>

<221> BINDING

<222> (8) .. (8)

<223> OtBu

<220>

<221> BINDING

<222> (10) .. (10)

<223> Pbf

<220>

<221> BINDING

<222> (12) .. (12)
 <223> OtBu

<220>
 <221> BINDING
 <222> (14) .. (14)
 <223> Pbf

<220>
 <221> BINDING
 <222> (16) .. (16)
 <223> OtBu

<220>
 <221> BINDING
 <222> (18) .. (18)
 <223> Pbf

<220>
 <221> BINDING
 <222> (20) .. (20)
 <223> OtBu

<220>
 <221> BINDING
 <222> (21) .. (21)
 <223> Resin

<400> 14

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
 1 5 10 15

Ala Arg Ala Asp Ala
 20

<210> 15
 <211> 21
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1) .. (1)

<220>
 <221> AMIDATION
 <222> (21) .. (21)

<400> 15

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp

<210>	16
<211>	21
<212>	PRT
<213>	artificial sequence
<220>	
<223>	chemically synthesized

```
<220>
<221> CARBOHYD
<222> (1)..(1)
<223> Disialo sugar chain added
```

<400> 16

```
<210> 17
<211> 21
<212> PRT
<213> artificial sequence
```

```
<220>
<221> CARBOHYD
<222> (1)..(1)
<223> Asialo sugar chain added
```

 $\langle 220 \rangle$

<221> AMIDATION
 <222> (21)..(21)

<400> 17

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
 1 5 10 15

Ala Arg Ala Asp Ala
 20

<210> 18
 <211> 21
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> DiGlcNAc sugar chain added

<220>
 <221> AMIDATION
 <222> (21)..(21)

<400> 18

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
 1 5 10 15

Ala Arg Ala Asp Ala
 20

<210> 19
 <211> 21
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> GlcNAc sugar chain added

<220>
 <221> AMIDATION
 <222> (21)..(21)

<400> 19

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
 1 5 10 15

Ala Arg Ala Asp Ala
 20

<210> 20
 <211> 21
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> DiBn-Disialo sugar chain added

<220>
 <221> AMIDATION
 <222> (21)..(21)

<400> 20

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
 1 5 10 15

Ala Arg Ala Asp Ala
 20

<210> 21
 <211> 21
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1) .. (1)

<220>
 <221> BINDING
 <222> (1) .. (1)
 <223> PEG2000 added

<220>
 <221> AMIDATION
 <222> (21) .. (21)

<400> 21

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
 1 5 10 15

Ala Arg Ala Asp Ala
 20

<210> 22
 <211> 17
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> BINDING
 <222> (1) .. (1)
 <223> Fmoc

<220>
 <221> BINDING
 <222> (1) .. (1)
 <223> Trt

<220>
 <221> BINDING
 <222> (2) .. (2)
 <223> Pbf

<220>
 <221> BINDING
 <222> (4) .. (4)
 <223> tBu

<220>
 <221> BINDING
 <222> (6) .. (6)
 <223> Pbf

<220>
 <221> BINDING
 <222> (8) .. (8)
 <223> OtBu

<220>
 <221> BINDING
 <222> (10) .. (10)
 <223> Pbf

<220>
 <221> BINDING
 <222> (12) .. (12)
 <223> tBu

<220>
 <221> BINDING
 <222> (14) .. (14)
 <223> Pbf

<220>
 <221> BINDING
 <222> (16) .. (16)
 <223> OtBu

<220>
 <221> BINDING
 <222> (17) .. (17)
 <223> Resin

<400> 22

Cys	Arg	Ala	Thr	Ala	Arg	Ala	Glu	Ala	Arg	Ala	Thr	Ala	Arg	Ala	Glu
1				5				10						15	

Ala

<210> 23
 <211> 17
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1) .. (1)

<220>
 <221> AMIDATION
 <222> (17) .. (17)

<400> 23

Cys Arg Ala Thr Ala Arg Ala Glu Ala Arg Ala Thr Ala Arg Ala Glu
1 5 10 15

Ala

<210> 24

<211> 17

<212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<220>

<221> ACETYLATION

<222> (1)..(1)

<220>

<221> CARBOHYD

<222> (1)..(1)

<223> Asialo sugar chain added

<220>

<221> AMIDATION

<222> (17)..(17)

<400> 24

Cys Arg Ala Thr Ala Arg Ala Glu Ala Arg Ala Thr Ala Arg Ala Glu
1 5 10 15

Ala

<210> 25

<211> 17

<212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<220>

<221> ACETYLATION

<222> (1)..(1)

<220>

<221> CARBOHYD

<222> (1)..(1)

<223> DiGlcNAc sugar chain added

<220>

<221> AMIDATION

<222> (17)..(17)

<400> 25

Cys	Arg	Ala	Thr	Ala	Arg	Ala	Glu	Ala	Arg	Ala	Thr	Ala	Arg	Ala	Glu
1				5				10						15	

Ala

<210> 26

<211> 16

<212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<220>

<221> BINDING

<222> (1)..(1)

<223> Fmoc

<220>

<221> BINDING

<222> (1)..(1)

<223> Pbf

<220>

<221> BINDING

<222> (3)..(3)

<223> Trt

<220>

<221> BINDING

<222> (5)..(5)

<223> Pbf

<220>

<221> BINDING

<222> (7)..(7)

<223> OtBu

<220>

<221> BINDING

<222> (9)..(9)

<223> Pbf

<220>

<221> BINDING

<222> (11)..(11)

<223> OtBu

<220>

<221> BINDING

<222> (13) .. (13)

<223> Pbf

<220>

<221> BINDING

<222> (15) .. (15)

<223> OtBu

<220>

<221> BINDING

<222> (16) .. (16)

<223> Resin

<400> 26

Arg	Ala	Cys	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala
1				5				10						15	

<210> 27

<211> 16

<212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<220>

<221> ACETYLATION

<222> (1) .. (1)

<220>

<221> AMIDATION

<222> (16) .. (16)

<400> 27

Arg	Ala	Cys	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala
1				5				10						15	

<210> 28

<211> 16

<212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<220>

<221> ACETYLATION

<222> (1) .. (1)

<220>
 <221> CARBOHYD
 <222> (3)..(3)
 <223> Asialo sugar chain added

<220>
 <221> AMIDATION
 <222> (16)..(16)

<400> 28

Arg Ala Cys Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala
 1 5 10 15

<210> 29
 <211> 16
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (3)..(3)
 <223> DiGlcNAc sugar chain added

<220>
 <221> AMIDATION
 <222> (16)..(16)

<400> 29

Arg Ala Cys Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala
 1 5 10 15

<210> 30
 <211> 16
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> BINDING
 <222> (1)..(1)
 <223> Fmoc

<220>
 <221> BINDING
 <222> (1) .. (1)
 <223> Pbf

<220>
 <221> BINDING
 <222> (2) .. (2)
 <223> Trt

<220>
 <221> BINDING
 <222> (3) .. (3)
 <223> OtBu

<220>
 <221> BINDING
 <222> (5) .. (5)
 <223> Pbf

<220>
 <221> BINDING
 <222> (7) .. (7)
 <223> OtBu

<220>
 <221> BINDING
 <222> (9) .. (9)
 <223> Pbf

<220>
 <221> BINDING
 <222> (11) .. (11)
 <223> OtBu

<220>
 <221> BINDING
 <222> (13) .. (13)
 <223> Pbf

<220>
 <221> BINDING
 <222> (15) .. (15)
 <223> OtBu

<220>
 <221> BINDING
 <222> (16) .. (16)
 <223> Resin

<400> 30

Arg Cys Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala
 1 5 10 15

<210> 31
 <211> 16

<212> PRT
 <213> artificial sequence
 <220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> AMIDATION
 <222> (16)..(16)

<400> 31

Arg	Cys	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala
1				5				10				15			

<210> 32
 <211> 16
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (2)..(2)
 <223> Asialo sugar chain added

<220>
 <221> AMIDATION
 <222> (16)..(16)

<400> 32

Arg	Cys	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala
1				5				10				15			

<210> 33
 <211> 16
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (2)..(2)
 <223> DiGlcNAc sugar chain added

<220>
 <221> AMIDATION
 <222> (16)..(16)

<400> 33

Arg	Cys	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala
1				5				10				15			

<210> 34
 <211> 16
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> BINDING
 <222> (1)..(1)
 <223> Fmoc

<220>
 <221> BINDING
 <222> (1)..(1)
 <223> Trt

<220>
 <221> BINDING
 <222> (3)..(3)
 <223> OtBu

<220>
 <221> BINDING
 <222> (5)..(5)
 <223> Pbf

<220>
 <221> BINDING
 <222> (7)..(7)
 <223> OtBu

<220>
 <221> BINDING
 <222> (9)..(9)
 <223> Pbf

<220>
 <221> BINDING
 <222> (11)..(11)
 <223> OtBu

<220>
 <221> BINDING
 <222> (13)..(13)
 <223> Pbf

<220>
 <221> BINDING
 <222> (15)..(15)
 <223> OtBu

<220>
 <221> BINDING
 <222> (16)..(16)
 <223> Resin

<400> 34

Cys Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala
 1 5 10 15

<210> 35
 <211> 16
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> AMIDATION
 <222> (16)..(16)

<400> 35

Cys Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala
 1 5 10 15

<210> 36
 <211> 16
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> Asialo sugar chain added

<220>
 <221> AMIDATION
 <222> (16)..(16)

<400> 36

Cys Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala
 1 5 10 15

<210> 37
 <211> 16
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> DiGlcNAc sugar chain added

<220>
 <221> AMIDATION
 <222> (16)..(16)

<400> 37

Cys Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala
 1 5 10 15

<210> 38
 <211> 18
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> BINDING

<222> (1) .. (1)
<223> Fmoc

<220>
<221> BINDING
<222> (1) .. (1)
<223> Trt

<220>
<221> BINDING
<222> (2) .. (2)
<223> Trt

<220>
<221> BINDING
<222> (3) .. (3)
<223> Pbf

<220>
<221> BINDING
<222> (5) .. (5)
<223> OtBu

<220>
<221> BINDING
<222> (7) .. (7)
<223> Pbf

<220>
<221> BINDING
<222> (9) .. (9)
<223> OtBu

<220>
<221> BINDING
<222> (11) .. (11)
<223> Pbf

<220>
<221> BINDING
<222> (13) .. (13)
<223> OtBu

<220>
<221> BINDING
<222> (15) .. (15)
<223> Pbf

<220>
<221> BINDING
<222> (17) .. (17)
<223> OtBu

<220>
<221> BINDING
<222> (18) .. (18)
<223> Resin

<400> 38

Cys Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala
1 5 10 15

Asp Ala

<210> 39

<211> 18

<212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<220>

<221> ACETYLATION

<222> (1)..(1)

<220>

<221> AMIDATION

<222> (18)..(18)

<400> 39

Cys Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala
1 5 10 15

Asp Ala

<210> 40

<211> 18

<212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<220>

<221> ACETYLATION

<222> (1)..(1)

<220>

<221> CARBOHYD

<222> (1)..(1)

<223> Maltose sugar chain added

<220>

<221> CARBOHYD

<222> (2)..(2)

<223> Maltose sugar chain added

<220>

<221> AMIDATION

<222> (18)..(18)

<400> 40

Cys	Cys	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala
1				5				10						15	

Asp Ala

<210> 41

<211> 18

<212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<220>

<221> ACETYLATION

<222> (1)..(1)

<220>

<221> CARBOHYD

<222> (1)..(1)

<223> Maltotriose sugar chain added

<220>

<221> CARBOHYD

<222> (2)..(2)

<223> Maltotriose sugar chain added

<220>

<221> AMIDATION

<222> (18)..(18)

<400> 41

Cys	Cys	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala
1				5				10						15	

Asp Ala

<210> 42

<211> 18

<212> PRT

<213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> Maltotetraose sugar chain added

<220>
 <221> CARBOHYD
 <222> (2)..(2)
 <223> Maltotetraose sugar chain added

<220>
 <221> AMIDATION
 <222> (18)..(18)

<400> 42

Cys	Cys	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala
1				5				10					15		

Asp Ala

<210> 43
 <211> 19
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> BINDING
 <222> (1)..(1)
 <223> Fmoc

<220>
 <221> BINDING
 <222> (1)..(1)
 <223> Trt

<220>
 <221> BINDING
 <222> (2)..(2)
 <223> Trt

<220>
 <221> BINDING

<222> (3) .. (3)
 <223> Trt

<220>
 <221> BINDING
 <222> (4) .. (4)
 <223> Pbf

<220>
 <221> BINDING
 <222> (6) .. (6)
 <223> OtBu

<220>
 <221> BINDING
 <222> (8) .. (8)
 <223> Pbf

<220>
 <221> BINDING
 <222> (10) .. (10)
 <223> OtBu

<220>
 <221> BINDING
 <222> (12) .. (12)
 <223> Pbf

<220>
 <221> BINDING
 <222> (14) .. (14)
 <223> OtBu

<220>
 <221> BINDING
 <222> (16) .. (16)
 <223> Pbf

<220>
 <221> BINDING
 <222> (18) .. (18)
 <223> OtBu

<220>
 <221> BINDING
 <222> (19) .. (19)
 <223> Resin

<400> 43

Cys Cys Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg
 1 5 10 15

Ala Asp Ala

<210> 44
 <211> 19
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> AMIDATION
 <222> (19)..(19)

<400> 44

Cys Cys Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg
 1 5 10 15

Ala Asp Ala

<210> 45
 <211> 19
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> Maltose sugar chain added

<220>
 <221> CARBOHYD
 <222> (2)..(2)
 <223> Maltose sugar chain added

<220>
 <221> CARBOHYD
 <222> (3)..(3)
 <223> Maltose sugar chain added

<220>
 <221> AMIDATION
 <222> (19)..(19)

<400> 45

Cys	Cys	Cys	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg
1				5				10						15	

Ala Asp Ala

<210> 46

<211> 17

<212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<220>

<221> BINDING

<222> (1) .. (1)

<223> Fmoc

<220>

<221> BINDING

<222> (1) .. (1)

<223> Pbf

<220>

<221> BINDING

<222> (3) .. (3)

<223> OtBu

<220>

<221> BINDING

<222> (5) .. (5)

<223> Pbf

<220>

<221> BINDING

<222> (7) .. (7)

<223> OtBu

<220>

<221> BINDING

<222> (9) .. (9)

<223> Trt

<220>

<221> BINDING

<222> (11) .. (11)

<223> Pbf

<220>

<221> BINDING

<222> (13) .. (13)

<223> OtBu

<220>

<221> BINDING

<222> (15)..(15)

<223> Pbf

<220>

<221> BINDING

<222> (17)..(17)

<223> OtBu

<220>

<221> BINDING

<222> (17)..(17)

<223> Resin

<400> 46

Arg Ala Asp Ala Arg Ala Asp Ala Cys Ala Arg Ala Asp Ala Arg Ala
1 5 10 15

Asp

<210> 47

<211> 17

<212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<220>

<221> ACETYLTATION

<222> (1)..(1)

<220>

<221> AMIDATION

<222> (17)..(17)

<400> 47

Arg Ala Asp Ala Arg Ala Asp Ala Cys Ala Arg Ala Asp Ala Arg Ala
1 5 10 15

Asp

<210> 48

<211> 17

<212> PRT

<213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (9)..(9)
 <223> Maltose sugar chain added

<220>
 <221> AMIDATION
 <222> (17)..(17)

<400> 48

Arg Ala Asp Ala Arg Ala Asp Ala Cys Ala Arg Ala Asp Ala Arg Ala
 1 5 10 15

Asp

<210> 49
 <211> 17
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (9)..(9)
 <223> Maltotriose sugar chain added

<220>
 <221> AMIDATION
 <222> (17)..(17)

<400> 49

Arg Ala Asp Ala Arg Ala Asp Ala Cys Ala Arg Ala Asp Ala Arg Ala
 1 5 10 15

Asp

<210> 50
 <211> 17
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (9)..(9)
 <223> Maltotetraose sugar chain added

<220>
 <221> AMIDATION
 <222> (17)..(17)

<400> 50

Arg Ala Asp Ala Arg Ala Asp Ala Cys Ala Arg Ala Asp Ala Arg Ala
 1 5 10 15

Asp

<210> 51
 <211> 18
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> BINDING
 <222> (1)..(1)
 <223> Fmoc

<220>
 <221> BINDING
 <222> (1)..(1)
 <223> Trt

<220>
 <221> BINDING
 <222> (2)..(2)
 <223> Pbf

<220>
 <221> BINDING
 <222> (4) .. (4)
 <223> OtBu

<220>
 <221> BINDING
 <222> (6) .. (6)
 <223> Pbf

<220>
 <221> BINDING
 <222> (8) .. (8)
 <223> OtBu

<220>
 <221> BINDING
 <222> (10) .. (10)
 <223> Pbf

<220>
 <221> BINDING
 <222> (12) .. (12)
 <223> OtBu

<220>
 <221> BINDING
 <222> (14) .. (14)
 <223> Pbf

<220>
 <221> BINDING
 <222> (16) .. (16)
 <223> OtBu

<220>
 <221> BINDING
 <222> (18) .. (18)
 <223> Trt

<220>
 <221> BINDING
 <222> (18) .. (18)
 <223> Resin

<400> 51

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
 1 5 10 15

Ala Cys

<210> 52
 <211> 18
 <212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<220>

<221> ACETYLATION

<222> (1)..(1)

<220>

<221> AMIDATION

<222> (18)..(18)

<400> 52

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
1 5 10 15

Ala Cys

<210> 53

<211> 18

<212> PRT

<213> artificial sequence

<220>

<223> chemically synthesized

<220>

<221> ACETYLATION

<222> (1)..(1)

<220>

<221> CARBOHYD

<222> (1)..(1)

<223> Maltose sugar chain added

<220>

<221> CARBOHYD

<222> (18)..(18)

<223> Maltose sugar chain added

<220>

<221> AMIDATION

<222> (18)..(18)

<400> 53

Cys Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
1 5 10 15

Ala Cys

<210> 54
 <211> 18
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> Maltotriose sugar chain added

<220>
 <221> CARBOHYD
 <222> (18)..(18)
 <223> Maltotriose sugar chain added

<220>
 <221> AMIDATION
 <222> (18)..(18)

<400> 54

Cys	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp
1				5				10					15		

Ala Cys

<210> 55
 <211> 17
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> BINDING
 <222> (1)..(1)
 <223> Fmoc

<220>
 <221> BINDING
 <222> (1)..(1)
 <223> Pbf

<220>
 <221> BINDING
 <222> (3) .. (3)
 <223> OtBu

<220>
 <221> BINDING
 <222> (5) .. (5)
 <223> Pbf

<220>
 <221> BINDING
 <222> (7) .. (7)
 <223> OtBu

<220>
 <221> BINDING
 <222> (9) .. (9)
 <223> Pbf

<220>
 <221> BINDING
 <222> (11) .. (11)
 <223> OtBu

<220>
 <221> BINDING
 <222> (13) .. (13)
 <223> Pbf

<220>
 <221> BINDING
 <222> (15) .. (15)
 <223> OtBu

<220>
 <221> BINDING
 <222> (17) .. (17)
 <223> Trt

<220>
 <221> BINDING
 <222> (17) .. (17)
 <223> Resin

<400> 55

Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala
 1 5 10 15

Cys

<210> 56
 <211> 17

<212> PRT
 <213> artificial sequence
 <220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> AMIDATION
 <222> (17)..(17)

<400> 56

Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala
 1 5 10 15

Cys

<210> 57
 <211> 17
 <212> PRT
 <213> artificial sequence

<220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (17)..(17)
 <223> DiGlcNAc sugar chain added

<220>
 <221> AMIDATION
 <222> (17)..(17)

<400> 57

Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala
 1 5 10 15

Cys

<210> 58
 <211> 16

<212> PRT
<213> artificial sequence

<220>
<223> chemically synthesized

<220>
<221> BINDING
<222> (1) .. (1)
<223> Fmoc

<220>
<221> BINDING
<222> (1) .. (1)
<223> Pbf

<220>
<221> BINDING
<222> (3) .. (3)
<223> OtBu

<220>
<221> BINDING
<222> (5) .. (5)
<223> Pbf

<220>
<221> BINDING
<222> (7) .. (7)
<223> OtBu

<220>
<221> BINDING
<222> (9) .. (9)
<223> Pbf

<220>
<221> BINDING
<222> (11) .. (11)
<223> OtBu

<220>
<221> BINDING
<222> (13) .. (13)
<223> Pbf

<220>
<221> BINDING
<222> (15) .. (15)
<223> OtBu

<220>
<221> BINDING
<222> (16) .. (16)
<223> Resin

<400> 58

Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala
 1 5 10 15

<210> 59
 <211> 17
 <212> PRT
 <213> artificial sequence
 <220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> Asialo sugar chain added

<220>
 <221> AMIDATION
 <222> (17)..(17)

<400> 59

Asn Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp Ala Arg Ala Asp
 1 5 10 15

Ala

<210> 60
 <211> 17
 <212> PRT
 <213> artificial sequence
 <220>
 <223> chemically synthesized

<220>
 <221> ACETYLATION
 <222> (1)..(1)

<220>
 <221> CARBOHYD
 <222> (1)..(1)
 <223> DiGlcNAc sugar chain added

<220>
 <221> AMIDATION
 <222> (17)..(17)

<400> 60

Asn	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp	Ala	Arg	Ala	Asp
1				5				10					15		

Ala
1