

C 4752W0 - SeqL_ST25
SEQUENCE LISTING

<110> CEVEC Pharmaceuticals GmbH

<120> Recombinant Glycoproteins with Reduced Antennary Fucosylation

<130> C 4752W0 - k1

<150> EP 17 000 521.9

<151> 29.03.2017

<160> 4

<170> PatentIn version 3.5

<210> 1

<211> 333

<212> PRT

<213> Homo sapiens

<400> 1

Met Val Ser Lys Ser Arg Trp Lys Leu Leu Ala Met Leu Ala Leu Val
1 5 10 15

Leu Val Val Met Val Trp Tyr Ser Ile Ser Arg Glu Asp Arg Tyr Ile
20 25 30

Glu Leu Phe Tyr Phe Pro Ile Pro Glu Lys Lys Glu Pro Cys Leu Gln
35 40 45

Gly Glu Ala Glu Ser Lys Ala Ser Lys Leu Phe Gly Asn Tyr Ser Arg
50 55 60

Asp Gln Pro Ile Phe Leu Arg Leu Glu Asp Tyr Phe Trp Val Lys Thr
65 70 75 80

Pro Ser Ala Tyr Glu Leu Pro Tyr Gly Thr Lys Gly Ser Glu Asp Leu
85 90 95

Leu Leu Arg Val Leu Ala Ile Thr Ser Ser Ser Ile Pro Lys Asn Ile
100 105 110

Gln Ser Leu Arg Cys Arg Arg Cys Val Val Val Gly Asn Gly His Arg
115 120 125

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Leu Arg Asn Ser Ser Leu Gly Asp Ala Ile Asn Lys Tyr Asp Val Val
 130 135 140

Ile Arg Leu Asn Asn Ala Pro Val Ala Gly Tyr Glu Gly Asp Val Gly
 145 150 155 160

Ser Lys Thr Thr Met Arg Leu Phe Tyr Pro Glu Ser Ala His Phe Asp
 165 170 175

Pro Lys Val Glu Asn Asn Pro Asp Thr Leu Leu Val Leu Val Ala Phe
 180 185 190

Lys Ala Met Asp Phe His Trp Ile Glu Thr Ile Leu Ser Asp Lys Lys
 195 200 205

Arg Val Arg Lys Gly Phe Trp Lys Gln Pro Pro Leu Ile Trp Asp Val
 210 215 220

Asn Pro Lys Gln Ile Arg Ile Leu Asn Pro Phe Phe Met Glu Ile Ala
 225 230 235 240

Ala Asp Lys Leu Leu Ser Leu Pro Met Gln Gln Pro Arg Lys Ile Lys
 245 250 255

Gln Lys Pro Thr Thr Gly Leu Leu Ala Ile Thr Leu Ala Leu His Leu
 260 265 270

Cys Asp Leu Val His Ile Ala Gly Phe Gly Tyr Pro Asp Ala Tyr Asn
 275 280 285

Lys Lys Gln Thr Ile His Tyr Tyr Glu Gln Ile Thr Leu Lys Ser Met
 290 295 300

Ala Gly Ser Gly His Asn Val Ser Gln Glu Ala Leu Ala Ile Lys Arg
 305 310 315 320

Met Leu Glu Met Gly Ala Ile Lys Asn Leu Thr Ser Phe
 325 330

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<210> 2
 <211> 406
 <212> PRT
 <213> Homo sapiens

<400> 2

Met Ile His Thr Asn Leu Lys Lys Lys Phe Ser Cys Cys Val Leu Val
 1 5 10 15

Phe Leu Leu Phe Ala Val Ile Cys Val Trp Lys Glu Lys Lys Lys Gly
 20 25 30

Ser Tyr Tyr Asp Ser Phe Lys Leu Gln Thr Lys Glu Phe Gln Val Leu
 35 40 45

Lys Ser Leu Gly Lys Leu Ala Met Gly Ser Asp Ser Gln Ser Val Ser
 50 55 60

Ser Ser Ser Thr Gln Asp Pro His Arg Gly Arg Gln Thr Leu Gly Ser
 65 70 75 80

Leu Arg Gly Leu Ala Lys Ala Lys Pro Glu Ala Ser Phe Gln Val Trp
 85 90 95

Asn Lys Asp Ser Ser Ser Lys Asn Leu Ile Pro Arg Leu Gln Lys Ile
 100 105 110

Trp Lys Asn Tyr Leu Ser Met Asn Lys Tyr Lys Val Ser Tyr Lys Gly
 115 120 125

Pro Gly Pro Gly Ile Lys Phe Ser Ala Glu Ala Leu Arg Cys His Leu
 130 135 140

Arg Asp His Val Asn Val Ser Met Val Glu Val Thr Asp Phe Pro Phe
 145 150 155 160

Asn Thr Ser Glu Trp Glu Gly Tyr Leu Pro Lys Glu Ser Ile Arg Thr
 165 170 175

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Lys Ala Gly Pro Trp Gly Arg Cys Ala Val Val Ser Ser Ala Gly Ser
180 185 190

Leu Lys Ser Ser Gln Leu Gly Arg Glu Ile Asp Asp His Asp Ala Val
195 200 205

Leu Arg Phe Asn Gly Ala Pro Thr Ala Asn Phe Gln Gln Asp Val Gly
210 215 220

Thr Lys Thr Thr Ile Arg Leu Met Asn Ser Gln Leu Val Thr Thr Glu
225 230 235 240

Lys Arg Phe Leu Lys Asp Ser Leu Tyr Asn Glu Gly Ile Leu Ile Val
245 250 255

Trp Asp Pro Ser Val Tyr His Ser Asp Ile Pro Lys Trp Tyr Gln Asn
260 265 270

Pro Asp Tyr Asn Phe Phe Asn Asn Tyr Lys Thr Tyr Arg Lys Leu His
275 280 285

Pro Asn Gln Pro Phe Tyr Ile Leu Lys Pro Gln Met Pro Trp Glu Leu
290 295 300

Trp Asp Ile Leu Gln Glu Ile Ser Pro Glu Glu Ile Gln Pro Asn Pro
305 310 315 320

Pro Ser Ser Gly Met Leu Gly Ile Ile Ile Met Met Thr Leu Cys Asp
325 330 335

Gln Val Asp Ile Tyr Glu Phe Leu Pro Ser Lys Arg Lys Thr Asp Val
340 345 350

Cys Tyr Tyr Tyr Gln Lys Phe Phe Asp Ser Ala Cys Thr Met Gly Ala
355 360 365

Tyr His Pro Leu Leu Tyr Glu Lys Asn Leu Val Lys His Leu Asn Gln
370 375 380

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Gly Thr Asp Glu Asp Ile Tyr Leu Leu Gly Lys Ala Thr Leu Pro Gly
385 390 395 400

Phe Arg Thr Ile His Cys
405

<210> 3
<211> 418
<212> PRT
<213> Homo sapiens

<400> 3

Met Pro Ser Ser Val Ser Trp Gly Ile Leu Leu Leu Ala Gly Leu Cys
1 5 10 15

Cys Leu Val Pro Val Ser Leu Ala Glu Asp Pro Gln Gly Asp Ala Ala
20 25 30

Gln Lys Thr Asp Thr Ser His His Asp Gln Asp His Pro Thr Phe Asn
35 40 45

Lys Ile Thr Pro Asn Leu Ala Glu Phe Ala Phe Ser Leu Tyr Arg Gln
50 55 60

Leu Ala His Gln Ser Asn Ser Thr Asn Ile Phe Phe Ser Pro Val Ser
65 70 75 80

Ile Ala Thr Ala Phe Ala Met Leu Ser Leu Gly Thr Lys Ala Asp Thr
85 90 95

His Asp Glu Ile Leu Glu Gly Leu Asn Phe Asn Leu Thr Glu Ile Pro
100 105 110

Glu Ala Gln Ile His Glu Gly Phe Gln Glu Leu Leu Arg Thr Leu Asn
115 120 125

Gln Pro Asp Ser Gln Leu Gln Leu Thr Thr Gly Asn Gly Leu Phe Leu
130 135 140

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Ser Glu Gly Leu Lys Leu Val Asp Lys Phe Leu Glu Asp Val Lys Lys
145 150 155 160

Leu Tyr His Ser Glu Ala Phe Thr Val Asn Phe Gly Asp Thr Glu Glu
165 170 175

Ala Lys Lys Gln Ile Asn Asp Tyr Val Glu Lys Gly Thr Gln Gly Lys
180 185 190

Ile Val Asp Leu Val Lys Glu Leu Asp Arg Asp Thr Val Phe Ala Leu
195 200 205

Val Asn Tyr Ile Phe Phe Lys Gly Lys Trp Glu Arg Pro Phe Glu Val
210 215 220

Lys Asp Thr Glu Glu Glu Asp Phe His Val Asp Gln Val Thr Thr Val
225 230 235 240

Lys Val Pro Met Met Lys Arg Leu Gly Met Phe Asn Ile Gln His Cys
245 250 255

Lys Lys Leu Ser Ser Trp Val Leu Leu Met Lys Tyr Leu Gly Asn Ala
260 265 270

Thr Ala Ile Phe Phe Leu Pro Asp Glu Gly Lys Leu Gln His Leu Glu
275 280 285

Asn Glu Leu Thr His Asp Ile Ile Thr Lys Phe Leu Glu Asn Glu Asp
290 295 300

Arg Arg Ser Ala Ser Leu His Leu Pro Lys Leu Ser Ile Thr Gly Thr
305 310 315 320

Tyr Asp Leu Lys Ser Val Leu Gly Gln Leu Gly Ile Thr Lys Val Phe
325 330 335

Ser Asn Gly Ala Asp Leu Ser Gly Val Thr Glu Glu Ala Pro Leu Lys
340 345 350

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Leu Ser Lys Ala Val His Lys Ala Val Leu Thr Ile Asp Glu Lys Gly
355 360 365

Thr Glu Ala Ala Gly Ala Met Phe Leu Glu Ala Ile Pro Met Ser Ile
370 375 380

Pro Pro Glu Val Lys Phe Asn Lys Pro Phe Val Phe Leu Met Ile Glu
385 390 395 400

Gln Asn Thr Lys Ser Pro Leu Phe Met Gly Lys Val Val Asn Pro Thr
405 410 415

Gln Lys

<210> 4
<211> 500
<212> PRT
<213> Homo sapiens

<400> 4

Met Ala Ser Arg Leu Thr Leu Leu Thr Leu Leu Leu Leu Leu Ala
1 5 10 15

Gly Asp Arg Ala Ser Ser Asn Pro Asn Ala Thr Ser Ser Ser Ser Gln
20 25 30

Asp Pro Glu Ser Leu Gln Asp Arg Gly Glu Gly Lys Val Ala Thr Thr
35 40 45

Val Ile Ser Lys Met Leu Phe Val Glu Pro Ile Leu Glu Val Ser Ser
50 55 60

Leu Pro Thr Thr Asn Ser Thr Thr Asn Ser Ala Thr Lys Ile Thr Ala
65 70 75 80

Asn Thr Thr Asp Glu Pro Thr Thr Gln Pro Thr Thr Glu Pro Thr Thr
85 90 95

Gln Pro Thr Ile Gln Pro Thr Gln Pro Thr Thr Gln Leu Pro Thr Asp

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100

105

110

Ser Pro Thr Gln Pro Thr Thr Gly Ser Phe Cys Pro Gly Pro Val Thr
115 120 125

Leu Cys Ser Asp Leu Glu Ser His Ser Thr Glu Ala Val Leu Gly Asp
130 135 140

Ala Leu Val Asp Phe Ser Leu Lys Leu Tyr His Ala Phe Ser Ala Met
145 150 155 160

Lys Lys Val Glu Thr Asn Met Ala Phe Ser Pro Phe Ser Ile Ala Ser
165 170 175

Leu Leu Thr Gln Val Leu Leu Gly Ala Gly Glu Asn Thr Lys Thr Asn
180 185 190

Leu Glu Ser Ile Leu Ser Tyr Pro Lys Asp Phe Thr Cys Val His Gln
195 200 205

Ala Leu Lys Gly Phe Thr Thr Lys Gly Val Thr Ser Val Ser Gln Ile
210 215 220

Phe His Ser Pro Asp Leu Ala Ile Arg Asp Thr Phe Val Asn Ala Ser
225 230 235 240

Arg Thr Leu Tyr Ser Ser Ser Pro Arg Val Leu Ser Asn Asn Ser Asp
245 250 255

Ala Asn Leu Glu Leu Ile Asn Thr Trp Val Ala Lys Asn Thr Asn Asn
260 265 270

Lys Ile Ser Arg Leu Leu Asp Ser Leu Pro Ser Asp Thr Arg Leu Val
275 280 285

Leu Leu Asn Ala Ile Tyr Leu Ser Ala Lys Trp Lys Thr Thr Phe Asp
290 295 300

Pro Lys Lys Thr Arg Met Glu Pro Phe His Phe Lys Asn Ser Val Ile

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305		310		315		320
Lys	Val	Pro	Met	Met	Asn	Ile
			325			335
Asp	Gln	Thr	Leu	Lys	Ala	Asn
			340			350
Leu	Ser	Leu	Val	Ile	Leu	Glu
			355			365
Asp	Met	Glu	Gln	Ala	Leu	Glu
						370
Lys	Leu	Glu	Met	Ser	Lys	Arg
						385
Ile	Lys	Val	Thr	Thr	Ser	Glu
						405
Glu	Phe	Phe	Asp	Phe	Ser	Tyr
			420			430
Asp	Pro	Asp	Leu	Gln	Val	Ser
						435
Leu	Thr	Glu	Thr	Gly	Val	Glu
						450
Ala	Arg	Thr	Leu	Leu	Val	Phe
						465
Leu	Trp	Asp	Gln	Gln	His	Lys
						485
Asp	Pro	Arg	Ala			
			500			