

eolf-seq1
SEQUENCE LISTING

<110> GlaxoSmithKline Biologicals SA

<120> PURIFICATION OF SECRETED POLYSACCHARIDES FROM S. AGALACTIAE

<130> VN56082

<160> 41

<170> PatentIn version 3.5

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<212> DNA

<213> Streptococcus agalactiae

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eof-seq1

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eof-seq1

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Gln Ser Val Thr Lys Leu Asn Ser Ile Thr Ser Gln Leu Gln Thr Ser
165     170     175
Val Gln Thr Asn Met Thr Ile Asp Asn Ile Asn Asp Leu Ile Asn Asn
180     185     190
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 His Leu Asn Val Ile Tyr Gly Val Val Ile Val Leu Ile Ile Leu Ala
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 Ser Leu Phe Leu Cys Ile Lys Asn Lys Ala Arg Ile Phe Thr Thr Ile
 65 70 75 80
 Ile Leu Val Leu Ala Ser Ile Phe Val Ala Thr Thr Leu Tyr Gly Phe
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 Lys Ser Thr Ile Asp Leu Thr Asn Asn Leu Asn Lys Thr Ala Ser Tyr
 100 105 110
 Ser Glu Ile Glu Met Ser Val Ile Val Pro Lys Asp Ser Lys Ile Thr
 115 120 125
 Asn Ile Glu Ala Val Ser Lys Leu Ala Ala Pro Val Lys Asn Asp Thr
 130 135 140
 Ser Asn Ile Thr Asp Leu Ile Glu His Ile Lys Ser Glu Lys Gly Ile
 145 150 155 160

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Ser Ile Thr Pro Gln Lys Thr Asp Ser Tyr Gln Asp Ala Tyr Asn Arg
165 170 175

Ile Lys Asn Gly Asp Ser Gln Ala Met Val Leu Asn Asn Ala Tyr Val
180 185 190

Ser Leu Ile Glu Leu Ser Thr Pro Asp Phe Lys Ser Gln Ile Lys Thr
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cgtcaccatt ttttggcatt tagacacctg aacgtcattt atggagttgt aattgtttta 180
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20 25 30

Val Val Ser Leu Phe Leu Met Tyr Arg His His Phe Leu Ala Phe Arg
35 40 45

His Leu Asn Val Ile Tyr Gly Val Val Ile Val Leu Ile Ile Leu Ala
50 55 60

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Page 7

co1f-seq1

35

40

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Ser Gly Asn Ala Asp Leu Gly Asp Ile Ile Cys Glu Thr Asn Val Pro
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115 120 125
Leu Leu Gln Asn Ala Tyr Phe Asn Lys Met Ile Glu Ala Ile Lys Asn
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Ile Phe Asp Tyr Ile Ile Ile Asp Thr Pro Pro Ile Gly Leu Val Val
145 150 155 160
Asp Ala Ala Ile Ile Ser Asn Ala Cys Asp Gly Phe Ile Leu Val Thr
165 170 175
Gln Ala Gly Arg Ile Lys Arg Asn Tyr Val Glu Lys Ala Lys Glu Gln
180 185 190
Met Glu Gln Ser Gly Ser Lys Phe Leu Gly Ile Ile Leu Asn Lys Val
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35 40 45

Ala Ser Thr Thr Ser Thr Ser Leu Ala Leu Ser Leu Ala Gln Ala Gly
50 55 60

Phe Lys Thr Leu Leu Ile Asp Ala Asp Thr Arg Asn Ser Val Met Ser
65 70 75 80

Gly Thr Phe Lys Ala Thr Gly Thr Ile Lys Gly Leu Thr Asn Tyr Leu

eo1f-seq1
90

85

95

Ser Gly Asn Ala Asp Leu Gly Asp Ile Ile Cys Glu Thr Asn Val Pro
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Arg Leu Met Val Val Pro Ser Gly Lys Val Pro Pro Asn Pro Thr Ala
115 120 125

Leu Leu Gln Asn Ala Tyr Phe Asn Lys Met Ile Glu Ala Ile Lys Asn
130 135 140

Ile Phe Asp Tyr Ile Ile Ile Asp Thr Pro Pro Ile Gly Leu Val Val
145 150 155 160

Asp Ala Ala Ile Ile Ser Asn Ala Cys Asp Gly Phe Ile Leu Val Thr
165 170 175

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

Met Glu Gln Ser Gly Ser Lys Phe Leu Gly Ile Ile Leu Asn Lys Val
195 200 205

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colf-seq1

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 35 40 45

Lys Ser Thr Thr Ser Thr Ser Leu Ala Leu Ser Leu Ala Gln Ala Gly
 50 55 60

Phe Lys Thr Leu Leu Ile Asp Ala Asp Thr Arg Asn Ser Val Met Ser
 65 70 75 80

Gly Thr Phe Lys Ala Thr Gly Thr Ile Lys Gly Leu Thr Asn Tyr Leu
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Ser Gly Asn Ala Asp Leu Gly Asp Ile Ile Cys Glu Thr Asn Val Pro
 100 105 110

Arg Leu Met Val Val Pro Ser Gly Lys Val Pro Pro Asn Pro Thr Ala
 115 120 125

Leu Leu Gln Asn Ala Tyr Phe Asn Lys Met Ile Glu Ala Ile Lys Asn
 130 135 140

Ile Phe Asp Tyr Ile Ile Ile Asp Thr Pro Pro Ile Gly Leu Val Val
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Asp Ala Ala Ile Ile Ser Asn Ala Cys Asp Gly Phe Ile Leu Val Thr
 165 170 175

Gln Ala Gly Arg Ile Lys Arg Asn Tyr Val Glu Lys Ala Lys Glu Gln
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Arg Ser Asp Val Asn Ile Ile Met Thr Val Asn Thr Asn Thr His Lys

eo1f-seq1

1 5 10 15

Val Leu Leu Thr Thr Thr Pro Arg Asp Ala Tyr Val Lys Ile Pro Asp
20 25 30

Gly Gly Gly Asn Gln Tyr Asp Lys Leu Thr His Ala Gly Leu Tyr Gly
35 40 45

Val Glu Thr Ser Met Lys Thr Leu Glu Asn Leu Tyr Asp Ile Asn Leu
50 55 60

Asp Tyr Tyr Ala Arg Ile Asn Phe Ser Ser Phe Leu Lys Leu Ile Asp
65 70 75 80

Leu Leu Gly Gly Val Thr Val Tyr Asn Asp Gln Ala Phe Thr Ser Lys
85 90 95

His Gly Asn Phe Asp Phe Pro Val Gly Gln Val Thr Leu Asn Ser Glu
100 105 110

Gln Ala Leu Gly Phe Val Arg Glu Arg Tyr Ser Leu Gln Gly Gly Asp
115 120 125

Asn Asp Arg Gly Arg Asn Gln Glu Lys Val Ile Ala Ala Ile Ile Asn
130 135 140

Lys Leu Ala Ser
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<210> 41
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<223> CpsD PFAM/PPF Domain aa72-187
<400> 41

Asn Lys Ala Arg Ile Phe Thr Thr Ile Ile Leu Val Leu Ala Ser Ile
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Phe Val Ala Thr Thr Leu Tyr Gly Phe Lys Ser Thr Ile Asp Leu Thr
20 25 30

Asn Asn Leu Asn Lys Thr Ala Ser Tyr Ser Glu Ile Glu Met Ser Val
35 40 45

Ile Val Pro Lys Asp Ser Lys Ile Thr Asn Ile Glu Ala Val ser Lys
50 55 60

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

eo1f-seq1

Glu His Ile Lys Ser Glu Lys Gly Ile Ser Ile Thr Pro Gln Lys Thr
85 90 95

Asp Ser Tyr Gln Asp Ala Tyr Asn Arg Ile Lys Asn Gly Asp Ser Gln
100 105 110

Ala Met Val Leu
115