

PCTKR2017012891-sequence listing

<110> Dinona Inc

<120> Antibody specifically binding to CD66c and use thereof

<130> OPP20174987KR

<150> KR 10-2016-0151359

<151> 2016-11-14

<160> 73

<170> KoPatentIn 3.0

<210> 1

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR-H1 of mouse or chimeric anti-CD66c antibody

<400> 1

Ala Ser Gly Tyr Ser Phe Thr Asp Tyr Thr Met Asn

1 5 10

<210> 2

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR-H2 of mouse or chimeric anti-CD66c antibody

<400> 2

Leu Ile Asn Pro Phe His Gly Gly Thr Val Ser Asn Gln Arg Phe Lys

1 5 10 15

Val

<210> 3

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR-H3 of mouse or chimeric anti-CD66c antibody

<400> 3

Val Arg Gly Asp Pro Val Arg His Tyr Tyr Ala Leu Ala Tyr

1 5 10

<210> 4

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR-L1 of mouse or chimeric anti-CD66c antibody

<400> 4

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Gly Ala Ser Glu Asn Val Tyr Gly Thr Leu Asn
1 5 10

<210> 5
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<220>
<223> CDR-L2 of mouse or chimeric anti-CD66c antibody

<400> 5
Gly Ala Thr Asn Leu Ala Asp
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<210> 6
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<220>
<223> CDR-L3 of mouse or chimeric anti-CD66c antibody

<400> 6
Val Ala Thr Tyr Tyr Cys Gln Asn Val Leu Ser Ala Pro Tyr Thr
1 5 10 15

<210> 7
<211> 121
<212> PRT
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<220>
<223> Heavy chain variable region of mouse or chimeric anti-CD66c antibody

<400> 7
Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
1 5 10 15

Ser Met Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Asp Tyr
20 25 30

Thr Met Asn Trp Val Lys Gln Ser His Gly Lys Asn Leu Glu Trp Ile
35 40 45

Gly Leu Ile Asn Pro Phe His Gly Gly Thr Val Ser Asn Gln Arg Phe
50 55 60

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

Met Glu Leu Leu Ser Leu Thr Ser Asp Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Val Arg Gly Asp Pro Val Arg His Tyr Tyr Ala Leu Ala Tyr Trp Gly
100 105 110

Gln Gly Thr Ser Val Thr Val Ser Ser
115 120

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<210> 8
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 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Light chain variable region of mouse or chimeric anti-CD66c antibody

<400> 8
 Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Ser Ala Ser Val Gly
 1 5 10 15
 Glu Thr Val Thr Ile Thr Cys Gly Ala Ser Glu Asn Val Tyr Gly Thr
 20 25 30
 Leu Asn Trp Tyr Gln Arg Lys Gln Gly Lys Ser Pro Gln Leu Leu Ile
 35 40 45
 Tyr Gly Ala Thr Asn Leu Ala Asp Gly Met Ser Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Arg Gln Tyr Ser Leu Lys Ile Ser Ser Leu His Pro
 65 70 75 80
 Asp Asp Val Ala Thr Tyr Tyr Cys Gln Asn Val Leu Ser Ala Pro Tyr
 85 90 95
 Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Ile
 100 105

<210> 9
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 <220>
 <223> CDR-H1 of humanized anti-CD66c antibody

<400> 9
 Ala Ser Gly Tyr Ser Phe Thr Asp Tyr Thr Met His
 1 5 10

<210> 10
 <211> 17
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<220>
 <223> CDR-H2 of humanized anti-CD66c antibody

<400> 10
 Leu Ile Asn Pro Phe Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe Lys
 1 5 10 15
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<210> 11
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PCTKR2017012891-sequence listing

<220>

<223> CDR-L1 of humanized anti-CD66c antibody

<400>

11
Gly Ala Ser Glu Asn Val Tyr Gly Thr Leu Ala
1 5 10

<210>

12

<211>

11

<212>

PRT

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Artificial Sequence

<220>

<223> CDR-L1 of humanized anti-CD66c antibody

<400>

12
Arg Ala Ser Glu Asn Val Tyr Gly Thr Leu Asn
1 5 10

<210>

13

<211>

15

<212>

PRT

<213>

Artificial Sequence

<220>

<223> CDR-L3 of humanized anti-CD66c antibody

<400>

13
Phe Ala Thr Tyr Tyr Cys Gln Asn Val Leu Ser Ala Pro Tyr Thr
1 5 10 15

<210>

14

<211>

128

<212>

PRT

<213>

Artificial Sequence

<220>

<223> Heavy chain variable region of humanized anti-CD66c antibody
(8F5-human-VH5)

<400>

14
Phe His Met Ala Asn Val His Gln Val Gln Leu Val Gln Ser Gly Ala
1 5 10 15
Glu Val Lys Lys Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Ala Ser
20 25 30
Gly Tyr Ser Phe Thr Asp Tyr Thr Met Asn Trp Val Arg Gln Ala His
35 40 45
Gly Gln Asn Leu Glu Trp Ile Gly Leu Ile Asn Pro Phe His Gly Gly
50 55 60
Thr Val Ser Asn Gln Arg Phe Lys Val Lys Ala Thr Leu Thr Val Asp
65 70 75 80
Val Ser Thr Asn Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp
85 90 95
Asp Thr Ala Val Tyr Tyr Cys Val Arg Gly Asp Pro Val Arg His Tyr

PCTKR2017012891-sequence listing

100 105 110
Tyr Ala Leu Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 15
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<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy chain variable region of humanized anti-CD66c antibody
(8F5-human-VH6)

<400> 15
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Met Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Asp Tyr
20 25 30
Thr Met Asn Trp Val Lys Gln Ala Pro Gly Gln Asn Leu Glu Trp Ile
35 40 45
Gly Leu Ile Asn Pro Phe His Gly Gly Thr Val Ser Asn Gln Arg Phe
50 55 60
Lys Val Lys Ala Thr Leu Thr Val Asp Val Ser Thr Asn Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Val Arg Gly Asp Pro Val Arg His Tyr Tyr Ala Leu Ala Tyr Trp Gly
100 105 110
Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 16
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy chain variable region of humanized anti-CD66c antibody
(8F5-human-VH7)

<400> 16
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Met Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Asp Tyr
20 25 30
Thr Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45
Gly Leu Ile Asn Pro Phe His Gly Gly Thr Val Ser Asn Gln Arg Phe
50 55 60
Lys Val Lys Ala Thr Leu Thr Val Asp Val Ser Thr Asn Thr Ala Tyr
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65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Val Arg Gly Asp Pro Val Arg His Tyr Tyr Ala Leu Ala Tyr Trp Gly
 100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210>	17
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<213>	Artificial Sequence

<220>
<223> Heavy chain variable region of humanized anti-CD66c antibody
(8F5-human-VH10)

<400>
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 17 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Asp Tyr
20 25 30
Thr Met Asn Trp Val Lys Gln Ala Pro Gly Gln Asn Leu Glu Trp Ile
35 40 45
Gly Leu Ile Asn Pro Phe His Gly Gly Thr Val Ser Asn Gln Arg Phe
50 55 60
Lys Val Lys Ala Thr Met Thr Val Asp Val Ser Thr Asn Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Val Arg Gly Asp Pro Val Arg His Tyr Tyr Ala Leu Ala Tyr Trp Gly
100 105 110
Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210>	18
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<220>
<223> Heavy chain variable region of humanized anti-CD66c antibody
(8F5-human-VH11)
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<400> 18
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Asp Tyr
20 25 30
Thr Met His Trp Val Lys Gln Ala Pro Gly Gln Asn Leu Glu Trp Ile
35 40 45

PCTKR2017012891-sequence listing

Gly Leu Ile Asn Pro Phe Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Lys Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Val Arg Gly Asp Pro Val Arg His Tyr Tyr Ala Leu Ala Tyr Trp Gly
100 105 110
Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 19
<211> 107
<212> PRT
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<220>
<223> Light chain variable region of humanized anti-CD66c antibody
(8F5-human-VK5)

<400> 19
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Gly Ala Ser Glu Asn Val Tyr Gly Thr
20 25 30
Leu Ala Trp Tyr Gln Arg Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Gly Ala Thr Asn Leu Ala Asp Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Arg Glu Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Asn Val Leu Ser Ala Pro Tyr
85 90 95
Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 20
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Light chain variable region of humanized anti-CD66c antibody
(8F5-human-VK7)

<400> 20
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Gly Ala Ser Glu Asn Val Tyr Gly Thr
20 25 30
Leu Asn Trp Tyr Gln Arg Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

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Tyr Gly Ala Thr Asn Leu Ala Asp Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Asn Val Leu Ser Ala Pro Tyr
85 90 95
Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 21
<211> 107
<212> PRT
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<220>
<223> Light chain variable region of humanized anti-CD66c antibody
(8F5-human-VK8)

<400> 21
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu Asn Val Tyr Gly Thr
20 25 30
Leu Asn Trp Tyr Gln Arg Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Gly Ala Thr Asn Leu Ala Asp Gly Met Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Asn Val Leu Ser Ala Pro Tyr
85 90 95
Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 22
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Framework 1 in Heavy chain variable region of chimeric anti-CD66c
antibody

<400> 22
Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
1 5 10 15
Ser Met Lys Ile Ser Cys Lys
20

<210> 23
<211> 23
<212> PRT

PCTKR2017012891-sequence listing

<213> Artificial Sequence

<220>

<223> Framework 1 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH5)

<400> 23

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys
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<210> 24

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<223> Framework 1 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH6)

<400> 24

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Met Lys Ile Ser Cys Lys
20

<210> 25

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<223> Framework 1 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH7)

<400> 25

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Met Lys Ile Ser Cys Lys
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<210> 26

<211> 23

<212> PRT

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<220>

<223> Framework 1 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH10)

<400> 26

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys
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PCTKR2017012891-sequence listing

<210> 27
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<220>
 <223> Framework 1 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH11)

<400> 27
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys
 20

<210> 28
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 1 in Light chain variable region of chimeric anti-CD66c antibody

<400> 28
 Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Ser Ala Ser Val Gly
 1 5 10 15
 Glu Thr Val Thr Ile Thr Cys
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<210> 29
 <211> 23
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<220>
 <223> Framework 1 in Light chain variable region of humanized anti-CD66c antibody (8F5-human-VK5)

<400> 29
 Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys
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<210> 30
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 <212> PRT
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<220>
 <223> Framework 1 in Light chain variable region of humanized anti-CD66c antibody (8F5-human-VK7)

<400> 30
 Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1 5 10 15
 Page 10

PCTKR2017012891-sequence listing

Asp Arg Val Thr Ile Thr Cys
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<210> 31
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Framework 1 in Light chain variable region of humanized anti-CD66c antibody (8F5-human-VK8)

<400> 31
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys
20

<210> 32
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Framework 2 in Heavy chain variable region of chimeric anti-CD66c antibody

<400> 32
Trp Val Lys Gln Ser His Gly Lys Asn Leu Glu Trp Ile Gly
1 5 10

<210> 33
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Framework 2 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH5)

<400> 33
Trp Val Arg Gln Ala His Gly Gln Asn Leu Glu Trp Ile Gly
1 5 10

<210> 34
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Framework 2 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH6)

<400> 34
Trp Val Lys Gln Ala Pro Gly Gln Asn Leu Glu Trp Ile Gly
1 5 10

PCTKR2017012891-sequence listing

<210> 35
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 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 2 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH7)

<400> 35
 Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile Gly
 1 5 10

<210> 36
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 2 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH10)

<400> 36
 Trp Val Lys Gln Ala Pro Gly Gln Asn Leu Glu Trp Ile Gly
 1 5 10

<210> 37
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 2 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH11)

<400> 37
 Trp Val Lys Gln Ala Pro Gly Gln Asn Leu Glu Trp Ile Gly
 1 5 10

<210> 38
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 2 in Light chain variable region of chimeric anti-CD66c antibody

<400> 38
 Trp Tyr Gln Arg Lys Gln Gly Lys Ser Pro Gln Leu Leu Ile Tyr
 1 5 10 15

<210> 39
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 2 in Light chain variable region of humanized anti-CD66c antibody (8F5-human-VK5)

PCTKR2017012891-sequence listing

<400> 39
 Trp Tyr Gln Arg Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
 1 5 10 15

<210> 40
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 2 in Light chain variable region of humanized anti-CD66c antibody (8F5-human-VK6)

<400> 40
 Trp Tyr Gln Arg Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
 1 5 10 15

<210> 41
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 2 in Light chain variable region of humanized anti-CD66c antibody (8F5-human-VK8)

<400> 41
 Trp Tyr Gln Arg Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
 1 5 10 15

<210> 42
 <211> 38
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 3 in Heavy chain variable region of chimeric anti-CD66c antibody

<400> 42
 Asn Gln Arg Phe Lys Val Lys Ala Thr Leu Thr Val Asp Val Ser Ser
 1 5 10 15

Asn Thr Ala Tyr Met Glu Leu Leu Ser Leu Thr Ser Asp Asp Ser Ala
 20 25 30

Val Tyr Tyr Cys Val Arg
 35

<210> 43
 <211> 38
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 3 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH5)

PCTKR2017012891-sequence listing

<400> 43
 Asn Gln Arg Phe Lys Val Lys Ala Thr Leu Thr Val Asp Val Ser Thr
 1 5 10 15
 Asn Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala
 20 25 30
 Val Tyr Tyr Cys Val Arg
 35

<210> 44
 <211> 38
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 3 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH6)

<400> 44
 Asn Gln Arg Phe Lys Val Lys Ala Thr Leu Thr Val Asp Val Ser Thr
 1 5 10 15
 Asn Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala
 20 25 30
 Val Tyr Tyr Cys Val Arg
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<210> 45
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<220>
 <223> Framework 3 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH7)

<400> 45
 Asn Gln Arg Phe Lys Val Lys Ala Thr Leu Thr Val Asp Val Ser Thr
 1 5 10 15
 Asn Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala
 20 25 30
 Val Tyr Tyr Cys Val Arg
 35

<210> 46
 <211> 38
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 3 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH10)

<400> 46
 Asn Gln Arg Phe Lys Val Lys Ala Thr Met Thr Val Asp Val Ser Thr
 1 5 10 15
 Asn Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala

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20

25

30

Val Tyr Tyr Cys Val Arg
35

<210> 47
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Framework 3 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH11)

<400> 47
Ala Gln Lys Phe Lys Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
1 5 10 15
Asn Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala
20 25 30

Val Tyr Tyr Cys Val Arg
35

<210> 48
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Framework 3 in Light chain variable region of chimeric anti-CD66c antibody

<400> 48
Gly Met Ser Ser Arg Phe Ser Gly Ser Gly Ser Gly Arg Gln Tyr Ser
1 5 10 15
Leu Lys Ile Ser Ser Leu His Pro Asp Asp
20 25

<210> 49
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Framework 3 in Light chain variable region of humanized anti-CD66c antibody (8F5-human-VK5)

<400> 49
Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Arg Gln Tyr Ser
1 5 10 15
Leu Lys Ile Ser Ser Leu His Pro Asp Asp
20 25

<210> 50
<211> 26
<212> PRT
<213> Artificial Sequence

PCTKR2017012891-sequence listing

<220>
 <223> Framework 3 in Light chain variable region of humanized anti-CD66c antibody (8F5-human-VK7)

<400> 50
 Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Tyr Thr
 1 5 10 15
 Leu Thr Ile Ser Ser Leu Gln Pro Asp Asp
 20 25

<210> 51
 <211> 26
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 3 in Light chain variable region of humanized anti-CD66c antibody (8F5-human-VK8)

<400> 51
 Gly Met Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Tyr Thr
 1 5 10 15
 Leu Thr Ile Ser Ser Leu Gln Pro Asp Asp
 20 25

<210> 52
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 4 in Light chain variable region of chimeric anti-CD66c antibody

<400> 52
 Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser
 1 5 10

<210> 53
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 4 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH5)

<400> 53
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 1 5 10

<210> 54
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 4 in Heavy chain variable region of humanized
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PCTKR2017012891-sequence listing
anti-CD66c antibody (8F5-human-VH6)

<400> 54
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 55
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Framework 4 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH7)

<400> 55
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 56
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Framework 4 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH10)

<400> 56
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 57
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Framework 4 in Heavy chain variable region of humanized anti-CD66c antibody (8F5-human-VH11)

<400> 57
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 58
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Framework 4 in Light chain variable region of chimeric anti-CD66c antibody

<400> 58
Phe Gly Gly Gly Thr Lys Leu Glu Ile Ile
1 5 10

PCTKR2017012891-sequence listing

<210> 59
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 4 in Light chain variable region of humanized anti-CD66c antibody (8F5-human-VK5)

<400> 59
 Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 1 5 10

<210> 60
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 4 in Light chain variable region of humanized anti-CD66c antibody (8F5-human-VK7)

<400> 60
 Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 1 5 10

<210> 61
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Framework 4 in Light chain variable region of humanized anti-CD66c antibody (8F5-human-VK8)

<400> 61
 Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 1 5 10

<210> 62
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide encoding heavy chain variable region of chimeric anti-CD66c antibody

<400> 62
 gaggtccagc tgcaacagtc tggacctgaa ctggtgaagc ctggagcttc aatgaagata 60
 tcctgcaagg cttctggtta ctcatcact gactacacca tgaactgggt gaagcagagc 120
 catggaaaga accttgagtg gattggactt attaatcctt tccatggtgg tactgtctcc 180
 aaccagaggt tcaaggtcaa ggccacatta actgtagaca agtcatcaa cacagcctac 240
 atggagctcc tcagtctgac atctgacgac tctgcggtct attactgtgt aagaggtgac 300
 ccggtccgcc attactatgc tttggcctac tggggtcagg gaacctcagt caccgtctcc 360

tca

363

<210> 63
 <211> 217
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Polynucleotide encoding light chain variable region of chimeric anti-CD66c antibody

<400> 63
 gacatccaga tgactcagtc tccagcttca ctgtctgcat ctgtgggaga aactgtcacc 60
 atcacatgtg gagcaagtga gaatgtttac ggtacttttaa attggtatca gcggaaacag 120
 ggaaaatctc ctcagctcct gatctatggt gcaaccaact tggcagatgg catgtcatcg 180
 aggttcagtg gcagtgggttc tggtagacag tattctc 217

<210> 64
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> 8F01 Primer of 1st frag forward

<400> 64
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<210> 65
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> 8F02 Primer of 1st frag reverse

<400> 65
 agttgaagcg ctgctcacag tca 23

<210> 66
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> 8F03 Primer of 2nd frag forward

<400> 66
 gtgagcagcg cttcaactaa ggg 23

<210> 67
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>

PCTKR2017012891-sequence listing

<223> 3E04 Primer of 2nd frag reverse

<400> 67
agtcgaattc tcatttccca ggagag 26

<210> 68
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> 8F04 Primer of 1st frag reverse

<400> 68
agttgaagca gaagacactg tca 23

<210> 69
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> 8F05 Primer of 1st frag forward

<400> 69
gtgtcttctg cttcaactaa ggg 23

<210> 70
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> 3E01 Primer of 1st frag forward

<400> 70
attactcgag gccaccatga agtggg 26

<210> 71
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> 8F06 Primer of 1st frag reverse

<400> 71
aacagtccgc ttgatctcca gct 23

<210> 72
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> 3EL02(2) Primer of 2nd frag forward

PCTKR2017012891-sequence listing

<400> 72
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<210> 73
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> 3E08 Primer of 2nd frag reverse

<400> 73
attagaattc tcagcactcg ccgcgg 26