

SEQUENCE LISTING

<110> AKESO BIOPHARMA, INC

<120> ANTI-IL-1 β ANTIBODY AND PHARMACEUTICAL COMPOSITION THEREOF AND USE OF SAME

<130> IEC180032PCT

<160> 22

<170> PatentIn version 3.2

<210> 1

<211> 354

<212> DNA

<213> Artificial

<220>

<223> Nucleotide sequence of antibody 3H6 heavy chain variable region

<400> 1

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cagccatcag gaaagggact cgagtggctg gctcacatct actgggacga cgacaagcgg      180
tacaaccctt ccctgaagag caggctgacc atcagcaagg acaccagcag caaccaggtg      240
ttcctgaaga tcaccagcgt ggacaccgcc gatagcgcta cctactattg cgccagaagc      300
gcctactaca gcttcgccta ttggggccag ggaacactgg tgtccgtgtc agcc          354
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<210> 2

<211> 118

<212> PRT

<213> Artificial

<220>

<223> The amino acid sequence of antibody 3H6 heavy chain variable region

<400> 2

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Gln Val Thr Leu Lys Glu Ser Gly Pro Gly Ile Leu Gln Pro Ser Gln
1           5           10           15
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Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu Ser Thr Ser
20           25           30
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Gly Met Gly Val Ser Trp Ile Arg Gln Pro Ser Gly Lys Gly Leu Glu
 35 40 45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
 50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Ser Asn Gln Val
 65 70 75 80

Phe Leu Lys Ile Thr Ser Val Asp Thr Ala Asp Ser Ala Thr Tyr Tyr
 85 90 95

Cys Ala Arg Ser Ala Tyr Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr
 100 105 110

Leu Val Ser Val Ser Ala
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<210> 3
 <211> 318
 <212> DNA
 <213> Artificial

<220>
 <223> Nucleotide sequence of antibody 3H6 light chain variable region

<400> 3
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 attacctgta aggcctctca ggacgtggat acagacgtgg cttggttcca gcagaagccc 120
 ggacagagcc ctaaactgct gatctactgg gcctccacaa ggcacactgg ggtgccagat 180
 cggttcactg gatcaggcag cgggaccgac tttactctga ccatttccaa cgtccagtct 240
 gaggatctgg ctgactatct ctgccagcag tacagctcct atcccacctt tggagcaggc 300
 acaaagctgg aactgaaa 318

<210> 4
 <211> 106

<212> PRT

<213> Artificial

<220>

<223> The amino acid sequence of antibody 3H6 light chain variable region

<400> 4

Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly
1 5 10 15

Gly Arg Val Arg Ile Thr Cys Lys Ala Ser Gln Asp Val Asp Thr Asp
20 25 30

Val Ala Trp Phe Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Trp Ala Ser Thr Arg His Thr Gly Val Pro Asp Arg Phe Thr Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
65 70 75 80

Glu Asp Leu Ala Asp Tyr Phe Cys Gln Gln Tyr Ser Ser Tyr Pro Thr
85 90 95

Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
100 105

<210> 5

<211> 354

<212> DNA

<213> Artificial

<220>

<223> Nucleotide sequence of antibody 3H6H1L1 heavy chain variable region

<400> 5

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cagccaagcg gcaaggccct ggagtggctg gcacacatct actgggacga tgacaagcgg 180

tataaccctt ccctgaagtc tagactgaca atctctaagg ataccagctc caaccaggtg 240
 ttctgaaga tcacaaatgt ggataccgtg gacacagcca cctactattg cgcccggagc 300
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<210> 6
 <211> 118
 <212> PRT
 <213> Artificial

<220>
 <223> The amino acid sequence of antibody 3H6H1L1 heavy chain variable region

<400> 6

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

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
 20 25 30

Gly Met Gly Val Ser Trp Ile Arg Gln Pro Ser Gly Lys Ala Leu Glu
 35 40 45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
 50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Ser Asn Gln Val
 65 70 75 80

Phe Leu Lys Ile Thr Asn Val Asp Thr Val Asp Thr Ala Thr Tyr Tyr
 85 90 95

Cys Ala Arg Ser Ala Tyr Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr
 100 105 110

Leu Val Ser Val Ser Ala
 115

<210> 7
<211> 318
<212> DNA
<213> Artificial

<220>
<223> Nucleotide sequence of antibody 3H6H1L1 light chain variable region

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ggccaggccc ctaagctgct gatctactgg gccagcacca ggcactccgg agtgccatct 180
cgcttcagcg gctccggctc tggcacagac ttcaccctga caatcagcaa cgtgcagcca 240
gaggatttcg ccgactacta ttgccagcag tactctagct atcccacctt tggcgccggc 300
acaaagctgg agctgaag 318

<210> 8
<211> 106
<212> PRT
<213> Artificial

<220>
<223> The amino acid sequence of antibody 3H6H1L1 light chain variable region

<400> 8

Asp Ile Gln Met Thr Gln Ser His Ser Ser Met Ser Thr Ser Val Gly
1 5 10 15

Asp Arg Val Arg Ile Thr Cys Arg Ala Ser Gln Asp Val Asp Thr Asp
20 25 30

Val Ala Trp Phe Gln Gln Lys Pro Gly Gln Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Trp Ala Ser Thr Arg His Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Pro
65 70 75 80

Glu Asp Phe Ala Asp Tyr Tyr Cys Gln Gln Tyr Ser Ser Tyr Pro Thr
85 90 95

Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
100 105

<210> 9
<211> 354
<212> DNA
<213> Artificial

<220>
<223> Nucleotide sequence of antibody 3H6H2L2 heavy chain variable region

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acatgtacct tcagcggctt ttctctgagc acctccggca tgggcgtgtc ctggatcagg 120
cagccatctg gcaaggccct ggagtggctg gcccacatct actgggacga tgacaagcgg 180
tattctccca gcctgaagtc tagactgaca atcagcaagg ataccagctc caaccaggtg 240
ttcctgacaa tcaccaacgt ggaccccgtg gacacagcca cctactattg cgcccggagc 300
gcctactatt cctttgccta ctggggccag ggcacactgg tgtccgtgtc tgcc 354

<210> 10
<211> 118
<212> PRT
<213> Artificial

<220>
<223> The amino acid sequence of antibody 3H6H2L2 heavy chain variable region

<400> 10

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

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
20 25 30

Gly Met Gly Val Ser Trp Ile Arg Gln Pro Ser Gly Lys Ala Leu Glu
 35 40 45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Ser Pro Ser
 50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Ser Asn Gln Val
 65 70 75 80

Phe Leu Thr Ile Thr Asn Val Asp Pro Val Asp Thr Ala Thr Tyr Tyr
 85 90 95

Cys Ala Arg Ser Ala Tyr Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr
 100 105 110

Leu Val Ser Val Ser Ala
 115

<210> 11
 <211> 318
 <212> DNA
 <213> Artificial

<220>
 <223> Nucleotide sequence of antibody 3H6H2L2 light chain variable region

<400> 11
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 ggcaaggccc ctaagctgct gatctattgg gcctctaccc tgcagagcgg agtgccatcc 180
 cggttctctg gcagcggctc cggaacagac ttcaccctga caatctctag cctgcagcca 240
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 acaaagctgg agctgaag 318

<210> 12
 <211> 106
 <212> PRT
 <213> Artificial

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<223> The amino acid sequence of antibody 3H6H2L2 light chain variable region

<400> 12

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Arg Ile Thr Cys Arg Ala Ser Gln Asp Val Asp Thr Asp
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Trp Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser Ser Tyr Pro Thr
85 90 95

Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
100 105

<210> 13

<211> 354

<212> DNA

<213> Artificial

<220>

<223> Nucleotide sequence of antibody 3H6H3L3 heavy chain variable region

<400> 13

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cagccacctg gcaaggccct ggagtggctg gccctgatct actgggacga tgacaagcgg 180

tatagccctt ccctgaagag cagactgaca atctccaagg atacctctaa gaaccaggtg 240

gtgctgacaa tcaccaacgt ggaccccgtg gacacagcca cctactattg cgcccggagc 300

gcctactatt cctttgccta ctggggccag ggcacactgg tgtctgtgag cgcc 354

<210> 14

<211> 118

<212> PRT

<213> Artificial

<220>

<223> The amino acid sequence of antibody 3H6H3L3 heavy chain variable region

<400> 14

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

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
20 25 30

Gly Met Gly Val Ser Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
35 40 45

Trp Leu Ala Leu Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Ser Pro Ser
50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
65 70 75 80

Val Leu Thr Ile Thr Asn Val Asp Pro Val Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Ser Ala Tyr Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Ser Val Ser Ala
115

<210> 15

<211> 318

<212> DNA
<213> Artificial

<220>

<223> Nucleotide sequence of antibody 3H6H3L3 light chain variable region

<400> 15

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ggcaaggccc ctaagctgct gatctattgg gcctctaccc tgcagagcgg agtgccatcc      180
cggttctctg gcagcggctc cggaacagac ttcaccctga caatctctag cctgcagcca      240
gaggacttcg ccacctacta ttgccagcag tactcctctt atccacacctt tggcgccggc      300
acaaagctgg agctgaag                                     318
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<210> 16
<211> 106
<212> PRT
<213> Artificial

<220>

<223> The amino acid sequence of antibody 3H6H3L3 light chain variable region

<400> 16

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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1           5           10          15
```

```
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Val Asp Thr Asp
20          25          30
```

```
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35          40          45
```

```
Tyr Trp Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50          55          60
```

```
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65          70          75          80
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Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser Ser Tyr Pro Thr
85 90 95

Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
100 105

<210> 17
<211> 10
<212> PRT
<213> Artificial

<220>
<223> HCDR1

<400> 17

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1 5 10

<210> 18
<211> 7
<212> PRT
<213> Artificial

<220>
<223> HCDR2

<400> 18

Ile Tyr Trp Asp Asp Asp Lys
1 5

<210> 19
<211> 10
<212> PRT
<213> Artificial

<220>
<223> HCDR3

<400> 19

Ala Arg Ser Ala Tyr Tyr Ser Phe Ala Tyr
1 5 10

<210> 20
<211> 6
<212> PRT
<213> Artificial

<220>
<223> LCDR1

<400> 20

Gln Asp Val Asp Thr Asp
1 5

<210> 21
<211> 3
<212> PRT
<213> Artificial

<220>
<223> LCDR2

<400> 21

Trp Ala Ser
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<210> 22
<211> 8
<212> PRT
<213> Artificial

<220>
<223> LCDR3

<400> 22

Gln Gln Tyr Ser Ser Tyr Pro Thr
1 5