SEQUENCE LISTING

<110> ELI LILLY AND COMPANY

<120> ANTIBODIES TO TAU AND USES THEREOF

<130> X20624

<150> US 62/121,116
<151> 2015-02-26

<160> 13

<170> PatentIn version 3.5

<210> 1
<211> 219
<212> PRT
<213> Artificial Sequence

<220>
<223> LC of exemplified tau monoclonal antibody of Example 1

<400> 1

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


Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20                  25                  30


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


Pro Arg Leu Leu Ile Tyr Lys Val Asp Asn Arg Phe Ser Gly Ile Pro
    50                  55                  60


Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65                  70                  75                  80


Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Ser Gln Ser
                85                  90                  95
```

```
Thr Leu Val Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105                 110


Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
        115                 120                 125


Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
    130                 135                 140


Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
145                 150                 155                 160


Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
                165                 170                 175


Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
            180                 185                 190


Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
        195                 200                 205


Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
    210                 215
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<210> 2
<211> 442
<212> PRT
<213> Artificial Sequence

<220>
<223> HC of exemplified tau monoclonal antibody of Example 1

<400> 2

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


Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Ser Asn Tyr
```

```
            20                  25                  30

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

Gly Glu Ile Leu Pro Gly Ser Asp Ser Ile Lys Tyr Glu Lys Asn Phe
    50                  55                  60

Lys Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65                  70                  75                  80

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
                85                  90                  95

Ala Arg Arg Gly Asn Tyr Val Asp Asp Trp Gly Gln Gly Thr Leu Val
            100                 105                 110

Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala
        115                 120                 125

Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu
    130                 135                 140

Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly
145                 150                 155                 160

Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser
                165                 170                 175

Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu
            180                 185                 190

Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr
        195                 200                 205

Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro
```

```
    210                 215                 220

Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro
225                 230                 235                 240

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
                245                 250                 255

Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn
            260                 265                 270

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
        275                 280                 285

Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
    290                 295                 300

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
305                 310                 315                 320

Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys
                325                 330                 335

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu
            340                 345                 350

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
        355                 360                 365

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
    370                 375                 380

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
385                 390                 395                 400

Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly
```

405 410 415

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
420 425 430

Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly
435 440

<210> 3
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1 of exemplified tau monoclonal antibody of Example 1

<400> 3

Arg Ser Ser Gln Ser Leu Val His Ser Asn Gln Asn Thr Tyr Leu His
1 5 10 15

<210> 4
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2 of exemplified tau monoclonal antibody of Example 1

<400> 4

Tyr Lys Val Asp Asn Arg Phe Ser
1 5

<210> 5
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3 of exemplified tau monoclonal antibody of Example 1

<400> 5

Ser Gln Ser Thr Leu Val Pro Leu Thr
1 5

<210> 6
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1 of exemplified tau monoclonal antibody of Example 1

<400> 6

Lys Gly Ser Gly Tyr Thr Phe Ser Asn Tyr Trp Ile Glu
1 5 10

<210> 7
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2 of exemplified tau monoclonal antibody of Example 1

<400> 7

Glu Ile Leu Pro Gly Ser Asp Ser Ile Lys Tyr Glu Lys Asn Phe Lys
1 5 10 15

Gly

<210> 8
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3 of exemplified tau monoclonal antibody of Example 1

<400> 8

Ala Arg Arg Gly Asn Tyr Val Asp Asp

1 5

<210> 9
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> LCVR of exemplified tau monoclonal antibody of Example 1

<400> 9

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

Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
20 25 30

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

Pro Arg Leu Leu Ile Tyr Lys Val Asp Asn Arg Phe Ser Gly Ile Pro
50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65 70 75 80

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

Thr Leu Val Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 10
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> HCVR of exemplified tau monoclonal antibody of Example 1

<400> 10

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


Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Ser Asn Tyr
            20                  25                  30


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


Gly Glu Ile Leu Pro Gly Ser Asp Ser Ile Lys Tyr Glu Lys Asn Phe
    50                  55                  60


Lys Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65                  70                  75                  80


Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
                85                  90                  95


Ala Arg Arg Gly Asn Tyr Val Asp Asp Trp Gly Gln Gly Thr Leu Val
            100                 105                 110


Thr Val Ser Ser
        115
```

<210> 11
<211> 657
<212> DNA
<213> Artificial Sequence

<220>
<223> Nucleotide Sequence Encoding the Exemplified LC (SEQ ID NO:1)

<400> 11

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ctctcctgca gatctagtca gagccttgta cacagtaatc agaacaccta tttacattgg      120
```

taccagcaga aacctggcca ggctcccagg ctcctcatct ataaagttga caaccgattt 180

tctggcatcc cagacaggtt cagtggcagt gggtctggga cagacttcac tctcaccatc 240

agcagactgg agcctgaaga ttttgcagtg tattactgtt ctcaaagtac actggttccg 300

ctcacgttcg gcggagggac caaggtggag atcaaacgga ccgtggctgc accatctgtc 360

ttcatcttcc cgccatctga tgagcagttg aaatctggaa ctgcctctgt tgtgtgcctg 420

ctgaataact tctatcccag agaggccaaa gtacagtgga aggtggataa cgccctccaa 480

tcgggtaact cccaggagag tgtcacagag caggacagca aggacagcac ctacagcctc 540

agcagcaccc tgacgctgag caaagcagac tacgagaaac acaaagtcta cgcctgcgaa 600

gtcacccatc agggcctgag ctcgcccgtc acaaagagct tcaacagggg agagtgc 657

<210> 12
<211> 1326
<212> DNA
<213> Artificial Sequence

<220>
<223> Nucleotide Sequence Encoding the Exemplified HC (SEQ ID NO: 2)

<400> 12
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tcctgtaagg gttctggcta cacattcagt aactactgga tagagtgggt gcgccagatg 120

cccgggaaag gcctggagtg gatgggggag attttacctg gaagtgatag tattaagtac 180

gaaaagaatt tcaagggcca ggtcaccatc tcagccgaca agtccatcag caccgcctac 240

ctgcagtgga gcagcctgaa ggcctcggac accgccatgt attactgtgc gagaaggggg 300

aactacgtgg acgactgggg ccagggcacc ctggtcaccg tctcctcagc ttctaccaag 360

ggcccatcgg tcttcccgct agcgccctgc tccaggagca cctccgagag cacagccgcc 420

ctgggctgcc tggtcaagga ctacttcccc gaaccggtga cggtgtcgtg gaactcaggc 480

gccctgacca gcggcgtgca caccttcccg gctgtcctac agtcctcagg actctactcc 540

ctcagcagcg tggtgaccgt gccctccagc agcttgggca cgaagaccta cacctgcaac 600

gtagatcaca agcccagcaa caccaaggtg gacaagagag ttgagtccaa atatggtccc 660

ccatgcccac cctgcccagc acctgaggcc gccgggggac catcagtctt cctgttcccc 720

ccaaaaccca aggacactct catgatctcc cggacccctg aggtcacgtg cgtggtggtg 780

gacgtgagcc aggaagaccc cgaggtccag ttcaactggt acgtggatgg cgtggaggtg 840

cataatgcca agacaaagcc gcgggaggag cagttcaaca gcacgtaccg tgtggtcagc 900

gtcctcaccg tcctgcacca ggactggctg aacggcaagg agtacaagtg caaggtctcc 960

aacaaaggcc tcccgtcctc catcgagaaa accatctcca aagccaaagg gcagccccga 1020

gagccacagg tgtacaccct gcccccatcc caggaggaga tgaccaagaa ccaggtcagc 1080

ctgacctgcc tggtcaaagg cttctacccc agcgacatcg ccgtggagtg ggaaagcaat 1140

gggcagccgg agaacaacta caagaccacg cctcccgtgc tggactccga cggctccttc 1200

ttcctctaca gcaggctaac cgtggacaag agcaggtggc aggaggggaa tgtcttctca 1260

tgctccgtga tgcatgaggc tctgcacaac cactacacac agaagagcct ctccctgtct 1320

ctgggt 1326

<210> 13
<211> 441
<212> PRT
<213> Artificial Sequence

<220>
<223> Amino Acid Sequence of Human, Full-Length Tau

<400> 13

Met Ala Glu Pro Arg Gln Glu Phe Glu Val Met Glu Asp His Ala Gly
1 5 10 15

Thr Tyr Gly Leu Gly Asp Arg Lys Asp Gln Gly Gly Tyr Thr Met His
20 25 30

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

```
Gln Thr Pro Thr Glu Asp Gly Ser Glu Glu Pro Gly Ser Glu Thr Ser
    50                  55                  60

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

Asp Glu Gly Ala Pro Gly Lys Gln Ala Ala Ala Gln Pro His Thr Glu
                85                  90                  95

Ile Pro Glu Gly Thr Thr Ala Glu Glu Ala Gly Ile Gly Asp Thr Pro
            100                 105                 110

Ser Leu Glu Asp Glu Ala Ala Gly His Val Thr Gln Ala Arg Met Val
        115                 120                 125

Ser Lys Ser Lys Asp Gly Thr Gly Ser Asp Asp Lys Lys Ala Lys Gly
    130                 135                 140

Ala Asp Gly Lys Thr Lys Ile Ala Thr Pro Arg Gly Ala Ala Pro Pro
145                 150                 155                 160

Gly Gln Lys Gly Gln Ala Asn Ala Thr Arg Ile Pro Ala Lys Thr Pro
                165                 170                 175

Pro Ala Pro Lys Thr Pro Pro Ser Ser Gly Glu Pro Pro Lys Ser Gly
            180                 185                 190

Asp Arg Ser Gly Tyr Ser Ser Pro Gly Ser Pro Gly Thr Pro Gly Ser
        195                 200                 205

Arg Ser Arg Thr Pro Ser Leu Pro Thr Pro Pro Thr Arg Glu Pro Lys
    210                 215                 220

Lys Val Ala Val Val Arg Thr Pro Pro Lys Ser Pro Ser Ser Ala Lys
225                 230                 235                 240
```

```
Ser Arg Leu Gln Thr Ala Pro Val Pro Met Pro Asp Leu Lys Asn Val
                245                 250                 255

Lys Ser Lys Ile Gly Ser Thr Glu Asn Leu Lys His Gln Pro Gly Gly
            260                 265                 270

Gly Lys Val Gln Ile Ile Asn Lys Lys Leu Asp Leu Ser Asn Val Gln
        275                 280                 285

Ser Lys Cys Gly Ser Lys Asp Asn Ile Lys His Val Pro Gly Gly Gly
    290                 295                 300

Ser Val Gln Ile Val Tyr Lys Pro Val Asp Leu Ser Lys Val Thr Ser
305                 310                 315                 320

Lys Cys Gly Ser Leu Gly Asn Ile His His Lys Pro Gly Gly Gly Gln
                325                 330                 335

Val Glu Val Lys Ser Glu Lys Leu Asp Phe Lys Asp Arg Val Gln Ser
            340                 345                 350

Lys Ile Gly Ser Leu Asp Asn Ile Thr His Val Pro Gly Gly Gly Asn
        355                 360                 365

Lys Lys Ile Glu Thr His Lys Leu Thr Phe Arg Glu Asn Ala Lys Ala
    370                 375                 380

Lys Thr Asp His Gly Ala Glu Ile Val Tyr Lys Ser Pro Val Val Ser
385                 390                 395                 400

Gly Asp Thr Ser Pro Arg His Leu Ser Asn Val Ser Ser Thr Gly Ser
                405                 410                 415

Ile Asp Met Val Asp Ser Pro Gln Leu Ala Thr Leu Ala Asp Glu Val
            420                 425                 430
```

Ser Ala Ser Leu Ala Lys Gln Gly Leu
435 440