

WHAT IS CLAIMED:

1. An anti-human A β_{pE3} antibody which comprises (i) a variable heavy chain (vH) comprising 3 CDRs; and (ii) a variable light chain (vL) comprising 3 CDRs, wherein:
vH CDR1 is GFSLSSTSGMGVS (SEQ ID NO:1);
vH CDR2 is HIYWDDDKRYNPYMKR (SEQ ID NO:2);
vH CDR3 is RADDYDVGFAY (SEQ ID NO:3);
vL CDR1 is LASQTIGTWLA (SEQ ID NO:4);
vL CDR2 is AATSLAD (SEQ ID NO:5); and
vL CDR3 is QQLYSSPFT (SEQ ID NO:6).
2. The anti-human A β_{pE3} antibody of claim 1, wherein the antibody comprises a heavy chain variable region comprising the amino acid sequence set forth as SEQ ID NO:7 and a light chain variable region comprising the amino acid sequence set forth as SEQ ID NO:8.
3. The anti-human A β_{pE3} antibody of claim 1, wherein the antibody comprises two heavy chains, each heavy chain comprising the amino acid sequence set forth as SEQ ID NO:9, and two light chains, each light chain comprising the amino acid sequence set forth as SEQ ID NO:10.
4. The anti-human A β_{pE3} antibody of claim 1, wherein the antibody comprises an IgG constant region.
5. The anti-human A β_{pE3} antibody of claim 4, wherein the antibody comprises a human heavy chain constant region comprising an Fc portion, wherein the Fc portion is a human IgG1, IgG2, IgG3, IgG4, or IgM isotype.
6. The anti-human A β_{pE3} antibody of claim 5, wherein the antibody comprises a kappa light chain constant region.
7. A composition comprising the anti-human A β_{pE3} antibody of claim 1.

8. Use of the anti-human A β _{pE3} antibody of claim 1 in the manufacture of a medicament for treating a neurodegenerative disorder.

9. The use of claim 8, wherein the neurodegenerative disorder is Alzheimer's disease (AD).

10. A polynucleotide comprising a nucleotide sequence encoding an anti-human A β _{pE3} antibody, wherein the antibody comprises (i) a vH chain comprising three CDRs; and (ii) a vL chain comprising three CDRs, wherein:

vH CDR1 is GFSLSSTSGMGVS (SEQ ID NO:1);

vH CDR2 is HIYWDDDKRYNPYMKR (SEQ ID NO:2);

vH CDR3 is RADDYDVGFAY (SEQ ID NO:3);

vL CDR1 is LASQTIGTWLA (SEQ ID NO:4);

vL CDR2 is AATSLAD (SEQ ID NO:5); and

vL CDR3 is QQLYSSPFT (SEQ ID NO:6).

11. A vector comprising the polynucleotide of claim 10.

12. A eukaryotic host cell transformed with the vector of claim 11.

13. The eukaryotic host cell of claim 12, which is a mammalian host cell.

14. A method for producing an anti-human A β _{pE3} antibody comprising: (a) culturing the mammalian host cell of claim 13 and (b) recovering the anti-human A β _{pE3} antibody.

15. An anti-human A β _{pE3} antibody, wherein the antibody comprises two heavy chains, each heavy chain comprising the amino acid sequence set forth as SEQ ID NO: 37 and two light chains, each light chain comprising the amino acid sequence set forth as SEQ ID NO: 10.

16. The anti-human A β _{pE3} antibody of claim 1 for use in therapy.