

Claims

1. An anti-amyloid beta (anti-A β) antibody comprising a heavy chain variable domain and a light chain variable domain, wherein

5 a) the heavy chain variable domain (VH domain) comprises the following amino acid sequence of SEQ ID NO:2

QVQLQESGPG LVKPSETLSL TCTVSGFSL SYGIHWIRQP PGKGLEWIGV WSGGITX₁X₆Y
X₂X₃X₄X₅SRVTIS RDTSKNQVSL KLSSVTAADT AVYYCARGSR YALDYWGQGT LVTVSS

wherein X₁ is D or N; X₂ is A, or P; X₃ is A or S; X₄ is F or L; X₅ is I or K; and X₆ is F or
10 Y, and

b) the light chain variable domain (VK domain) comprises the following amino acid sequence of SEQ ID NO:6

DIQMTQSPSS LSASVGDRVT ITCRASQDIS NYLNWYQQKP GKAPKLLIYY TSRLHSGVPS
RFSGSGSGTD FTLTISSLQP EDFATYYCQQ GX₇TLPTFGG GTKLEIK

15 wherein X₇ is N or H,

wherein the antibody binds amyloid peptides A β pE3-42 and A β 4-42 and does not bind amyloid peptide A β 1-42.

20 2. An antibody according to claim 1, wherein the heavy chain variable domain comprises SEQ ID NO: 3.

3. An antibody according to claim 1 or 2, wherein the heavy chain variable domain comprises SEQ ID NO: 4.

25 4. An antibody according to claim 1 or 2, wherein the heavy chain variable domain comprises SEQ ID NO: 5.

5. An antibody according to any one of claims 1 to 4, wherein the light chain variable
30 domain comprises SEQ ID NO: 7.

6. An antibody according to any one of claims 1 to 4, wherein the light chain variable domain comprises SEQ ID NO: 8.

7. An antibody according to claim 1, comprising the VH domain of SEQ ID NO: 3 and the VK domain of SEQ ID NO: 7.

8. An antibody according to claim 1, comprising the VH domain of SEQ ID NO: 4 and the VK domain of SEQ ID NO: 7.

9. An antibody according to claim 1, comprising the VH domain of SEQ ID NO: 5 and the VK domain of SEQ ID NO: 8.

10. An antibody according to claim 1, comprising the VH domain of SEQ ID NO: 5 and the VK domain of SEQ ID NO: 7.

11. A pharmaceutical composition comprising an antibody according to any one of the preceding claims with a pharmaceutically acceptable carrier.

12. An antibody according to any one of claims 1 to 10 or the pharmaceutical composition of claim 11, for use as a medicament.

13. An antibody according to any one of claims 1 to 10 or the pharmaceutical composition of claim 11, for use in a method of treatment of Alzheimer's disease in an individual.

14. Use of an antibody according to any one of claims 1 to 10 or the pharmaceutical composition of claim 11 in the preparation of a medicament for the treatment of Alzheimer's disease in an individual.