WHAT IS CLAIMED IS:

1. An antibody or an antigen-binding antibody fragment that binds to human tau, the antibody or the antigen-binding antibody fragment comprising a mature heavy chain variable region comprising CDR-H1 of SEQ ID NO:11 or SEQ ID NO:24, CDR-H2 of SEQ ID NO:12 and CDR-H3 of SEQ ID NO:13, and a mature light chain variable region comprising CDR-L1 of SEQ ID NO:17, CDR-L2 of SEQ ID NO:18, and CDR-L3 of SEQ ID NO:19,

wherein the antibody is a humanized, chimeric, or veneered antibody, or the antigen-binding antibody fragment is a humanized, chimeric, or veneered antigen-binding antibody fragment.

2. The antibody or the antigen-binding antibody fragment of claim 1, wherein the mature heavy chain variable region has an amino acid sequence at least 90% identical to SEQ ID NO: 15 and the mature light chain variable region has an amino acid sequence at least 90% identical to SEQ ID NO:22.

3. The antibody or the antibody-binding antibody fragment of claim 2, wherein positions H13, H48, and H91 are occupied by K, M, and F, respectively, and at least three of the positions Ll, L4, L36, and L43 are occupied by N, L, F, and S, respectively.

4. The antibody or the antigen-binding antibody fragment of claim 3, wherein positions H13, H48 and H91 are occupied by K, M, and F, respectively, and positions Ll, L4, L36, and L43 are occupied by N, L, F and S respectively.

5. The antibody or the antigen-binding antibody fragment of claims 2 or 3, comprising a mature heavy chain variable region having an amino acid sequence at least 95% identical to SEQ ID NO: 15 and a mature light chain variable region having an amino acid sequence at least 95% identical to SEQ ID NO: 22.

6. The antibody or the antigen-binding antibody fragment of any one of claims 2 to 5 wherein the mature heavy chain variable region is fused to a heavy chain constant region and the mature light chain variable region is fused to a light chain constant region.

7. The antibody or the antigen-binding antibody fragment of claim 6, wherein the heavy chain constant region is a mutant form of natural human constant region which has reduced binding to an Fcγ receptor relative to the natural human constant region.

8. The antibody or the antigen-binding antibody fragment of claim 6 or 7, wherein the heavy chain constant region is of IgG1 isotype.

9. The antibody or the antigen-binding antibody fragment of claim 2 or 7, wherein the mature heavy chain variable region has an amino acid sequence encoded by SEQ ID NO: 25 and the mature light chain variable region has an amino acid sequence of SEQ ID NO:21, 22, or 23.

10. The antibody or the antigen-binding antibody fragment of any one of claims 2-9, wherein the mature heavy chain variable region has an amino acid sequence encoded by SEQ ID NO:25 and the mature light chain variable region has an amino acid sequence of SEQ ID NO:22.

11. The antibody or the antigen-binding antibody fragment of any one of claims 2 to 10, wherein the antibody or the antigen-binding antibody fragment is conjugated to a cytotoxic or cytostatic agent.

12. The antibody or the antigen-binding antibody fragment of any one of claims 1-6, or 9-11, wherein the antigen-binding antibody fragment is a Fab fragment.

13. A polynucleotide comprising a nucleic acid encoding the heavy chain and the light chain of the antibody as described in claims 1-11.

14. A pharmaceutical composition comprising the antibody or the antigen-binding antibody fragment of any one of claims 1 to 12 and a pharmaceutically acceptable carrier.

15. Use of an effective regime of the antibody or the antigen-binding antibody fragment of any of claims 1 to 12 or the pharmaceutical composition according to claim 14 in the manufacture of a medicament for treating of Alzheimer's disease to a patient having Alzheimer's disease.

16. Use of an effective regime of the antibody or the antigen-binding antibody fragment of any one of claims 1 to 12 or the pharmaceutical composition of claim 14in the manufacture of a medicament for treating a disease associated with tau, reducing aberrant transmission of tau, inducing phagocytosis of tau, inhibiting tau aggregation or deposition or inhibiting formation of tau tangles to a patient having a disease associated with tau.

17. A nucleic acid comprising a segment encoding a humanized monoclonal antibody heavy chain variable region having the amino acid sequence of SEQ ID NO: 10 and a segment encoding a humanized monoclonal antibody light chain variable region having the amino acid sequence of SEQ ID NO: 16, SEQ ID NO: 26, SEQ ID NO: 27, or SEQ ID NO: 28.

18. A nucleic acid comprising encoding a segment encoding a humanized monoclonal antibody heavy chain variable region comprising the nucleotide sequence of SEQ ID NO: 25.

19. The nucleic acid of claim 17 or 18, further comprising a segment encoding a human IgG1 heavy chain constant region.

20. The nucleic acid of claim 19, wherein the human IgG1 heavy chain constant region has a sequence of SEQ ID NO: 29 with or without the C-terminal lysine.

21. The nucleic acid of claim 17 or 18, further comprising a segment encoding a human kappa constant region.

22. The nucleic acid of claim 21, wherein the human kappa constant region has the sequence of SEQ ID NO: 32.

23. The nucleic acid of claim 22, wherein the segment encoding the human kappa constant region has the sequence of SEQ ID NO: 33.

24. The antibody or the antigen-binding antibody fragment of claim 1, wherein a heavy chain of the antibody comprises a human IgG1 heavy chain constant region having the sequence of SEQ ID NO: 29 with or without the C-terminal lysine.

25. The antibody or the antigen-binding antibody fragment of claim 1, wherein a light chain of the antibody comprises a human kappa constant region having the sequence of SEQ ID NO: 32.