

Claims

1. A monoclonal antibody or antigen-binding fragment thereof, wherein the antibody or antigen-binding fragment: a) binds tau in normal human brain tissue and b) does not binds tau in human Alzheimer's disease (AD) brain tissue, wherein the antibody is selected from the group consisting of
 - a) an antibody comprising a heavy chain CDR1 region of SEQ ID NO:201, a heavy chain CDR2 region of SEQ ID NO:202, and a heavy chain CDR3 region of SEQ ID NO:203, a light chain CDR1 region of SEQ ID NO:204, a light chain CDR2 region of SEQ ID NO:205 and a light chain CDR3 region of SEQ ID NO:206,
 - b) an antibody comprising a heavy chain CDR1 region of SEQ ID NO:207, a heavy chain CDR2 region of SEQ ID NO:208, and a heavy chain CDR3 region of SEQ ID NO:209, a light chain CDR1 region of SEQ ID NO:210, a light chain CDR2 region of SEQ ID NO:211 and a light chain CDR3 region of SEQ ID NO:212,
 - c) an antibody comprising a heavy chain CDR1 region of SEQ ID NO:222, a heavy chain CDR2 region of SEQ ID NO:223, and a heavy chain CDR3 region of SEQ ID NO:224, a light chain CDR1 region of SEQ ID NO:225, a light chain CDR2 region of SEQ ID NO:173 and a light chain CDR3 region of SEQ ID NO:226,
 - d) an antibody comprising a heavy chain CDR1 region of SEQ ID NO:238, a heavy chain CDR2 region of SEQ ID NO:239, and a heavy chain CDR3 region of SEQ ID NO:240, a light chain CDR1 region of SEQ ID NO:241, a light chain CDR2 region of SEQ ID NO:173 and a light chain CDR3 region of SEQ ID NO:242,
 - e) an antibody comprising a heavy chain CDR1 region of SEQ ID NO:243, a heavy chain CDR2 region of SEQ ID NO:244, and a heavy chain CDR3 region of SEQ ID NO:245, a light chain CDR1 region of SEQ ID NO:246, a light chain CDR2 region of SEQ ID NO:173 and a light chain CDR3 region of SEQ ID NO:212,
 - f) an antibody comprising a heavy chain CDR1 region of SEQ ID NO:243, a heavy chain CDR2 region of SEQ ID NO:247, and a heavy chain CDR3 region of SEQ ID NO:248, a

light chain CDR1 region of SEQ ID NO:249 a light chain CDR2 region of SEQ ID NO:173 and a light chain CDR3 region of SEQ ID NO:212, and

g) an antibody comprising a heavy chain CDR1 region of SEQ ID NO:250, a heavy chain CDR2 region of SEQ ID NO:251, and a heavy chain CDR3 region of SEQ ID NO:252, a light chain CDR1 region of SEQ ID NO:254, a light chain CDR2 region of SEQ ID NO:254 and a light chain CDR3 region of SEQ ID NO:255.

2. The antibody or antigen-binding fragment thereof of claim 1 comprising an antigen-binding site of a VH of SEQ ID NO: 115 and the VL of SEQ ID NO: 116.
3. The antibody or antigen-binding fragment thereof of claim 1 comprising an antigen-binding site of a VH of SEQ ID NO: 119 and the VL of SEQ ID NO: 120.
4. The antibody or antigen-binding fragment thereof of claim 1 comprising an antigen-binding site of a VH of SEQ ID NO: 135 and the VL of SEQ ID NO: 136.
5. The antibody or antigen-binding fragment thereof of claim 1 comprising an antigen-binding site of a VH of SEQ ID NO: 147 and the VL of SEQ ID NO: 148
6. The antibody or antigen-binding fragment thereof of claim 1 comprising an antigen-binding site of a VH of SEQ ID NO: 151 and the VL of SEQ ID NO: 152
7. The antibody or antigen-binding fragment thereof of claim 1 comprising an antigen-binding site of a VH of SEQ ID NO: 155 and the VL of SEQ ID NO: 156
8. The antibody or antigen-binding fragment thereof of claim 1 comprising an antigen-binding site of a VH of SEQ ID NO: 159 and the VL of SEQ ID NO: 160
9. An isolated nucleic acid encoding the antibody or antigen-binding fragment according to any one of claims 1-8.
10. A vector comprising a nucleic acid according to claim 9.
11. A host cell comprising the vector according to claim 10.

12. A method of producing an antibody or antigen-binding fragment according to any one of claims 1-8, comprising culturing the host cell of claim 11 and recovering the antibody or fragment thereof produced by the host cell.
13. A pharmaceutical composition comprising an antibody according to any one of claims 1-8, the pharmaceutical composition further comprising at least one pharmaceutically acceptable excipient.