WHAT IS CLAIMED IS:

1. An isolated antibody that binds to human Tau, wherein the antibody comprises:
    a) HVR-H1 comprising the amino acid sequence of SEQ ID NO: 142; HVR-H2 comprising the amino acid sequence of SEQ ID NO: 143; HVR-H3 comprising the amino acid sequence of SEQ ID NO: 144; HVR-L1 comprising the amino acid sequence of SEQ ID NO: 145; HVR-L2 comprising the amino acid sequence of SEQ ID NO: 146; and HVR-L3 comprising the amino acid sequence of SEQ ID NO: 147;
    b) HVR-H1 comprising the amino acid sequence of SEQ ID NO: 162; HVR-H2 comprising the amino acid sequence of SEQ ID NO: 163; HVR-H3 comprising the amino acid sequence of SEQ ID NO: 164; HVR-L1 comprising the amino acid sequence of SEQ ID NO: 165; HVR-L2 comprising the amino acid sequence of SEQ ID NO: 166; and HVR-L3 comprising the amino acid sequence of SEQ ID NO: 167; or
    c) HVR-H1 comprising the amino acid sequence of SEQ ID NO: 242; HVR-H2 comprising the amino acid sequence of SEQ ID NO: 243; HVR-H3 comprising the amino acid sequence of SEQ ID NO: 244; HVR-L1 comprising the amino acid sequence of SEQ ID NO: 245; HVR-L2 comprising the amino acid sequence of SEQ ID NO: 246; and HVR-L3 comprising the amino acid sequence of SEQ ID NO: 247.
2. The isolated antibody of claim 1, wherein the antibody comprises:
    a) a heavy chain variable region (VH) comprising a sequence that is at least 95% identical to SEQ ID NO: 140;
    b) a light chain variable region (VL) comprising a sequence that is at least 95% identical to SEQ ID NO: 141;
    c) a VH as in (a) and a VL as in (b);
    d) a heavy chain variable region (VH) comprising a sequence that is at least 95% identical to SEQ ID NO: 160;
    e) a light chain variable region (VL) comprising a sequence that is at least 95% identical to SEQ ID NO: 161;
    f) a VH as in (d) and a VL as in (e);

g) a heavy chain variable region (VH) comprising a sequence that is at least 95% identical to SEQ ID NO: 240;

h) a light chain variable region (VL) comprising a sequence that is at least 95% identical to SEQ ID NO: 241; or

i) a VH as in (g) and a VL as in (h).

3. The isolated antibody of claim 1, wherein the antibody comprises:

a) a heavy chain variable region (VH) comprising the sequence of SEQ ID NO: 140;

b) a light chain variable region (VL) comprising the sequence of SEQ ID NO: 141;

c) a VH as in (a) and a VL as in (b);

d) a heavy chain variable region (VH) comprising the sequence of SEQ ID NO: 160;

e) a light chain variable region (VL) comprising the sequence of SEQ ID NO: 161;

f) a VH as in (d) and a VL as in (e);

g) a heavy chain variable region (VH) comprising the sequence of SEQ ID NO: 240;

h) a light chain variable region (VL) comprising the sequence of SEQ ID NO: 241; or

i) a VH as in (g) and a VL as in (h).

4. The isolated antibody of claim 1, wherein the antibody is an IgG1 or an IgG4 antibody.

5. The isolated antibody of claim 4, wherein the antibody is an IgG4 antibody.

6. The isolated antibody of claim 5, wherein the antibody comprises M252Y, S254T, and T256E mutations.

7. The isolated antibody of claim 5, wherein the antibody comprises an S228P mutation.

8. The isolated antibody of claim 1, which is an antibody fragment.

9. The isolated antibody of claim 1, wherein the antibody binds each of monomeric Tau, phosphorylated Tau, non-phosphorylated Tau, and oligomeric Tau with a K_D of less than 100 nM, less than 75 nM, or less than 50 nM.

10. The isolated antibody of claim 1, which binds cynomolgus monkey Tau (SEQ ID NO: 4).

11. An isolated nucleic acid that encodes the antibody of claim 1.

12. A host cell comprising the nucleic acid of claim 11.

13. A method of producing an antibody comprising culturing the host cell of claim 12 under conditions suitable for producing the antibody.

14. An immunoconjugate comprising the isolated antibody of claim 1 and a second therapeutic agent.

15. A labeled antibody comprising the antibody of claim 1 and a detectable label.

16. A pharmaceutical composition comprising the isolated antibody of claim 1 and a pharmaceutically acceptable carrier.

17. The isolated antibody of claim 1, which is a monoclonal antibody.

18. The isolated antibody of claim 1, which is a humanized or chimeric antibody.

19. The isolated antibody of claim 1, wherein the antibody binds to monomeric Tau, oligomeric Tau, non-phosphorylated Tau, and phosphorylated Tau.

20. The isolated antibody of claim 1, wherein the antibody binds an epitope within amino acids 19 to 42 of mature human Tau.